SERVICEMANUAL
TROPHY

handicare

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Preface

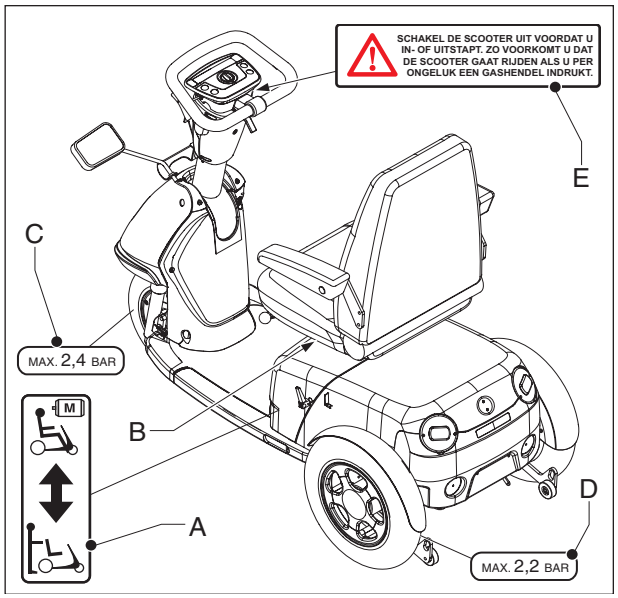
This manual

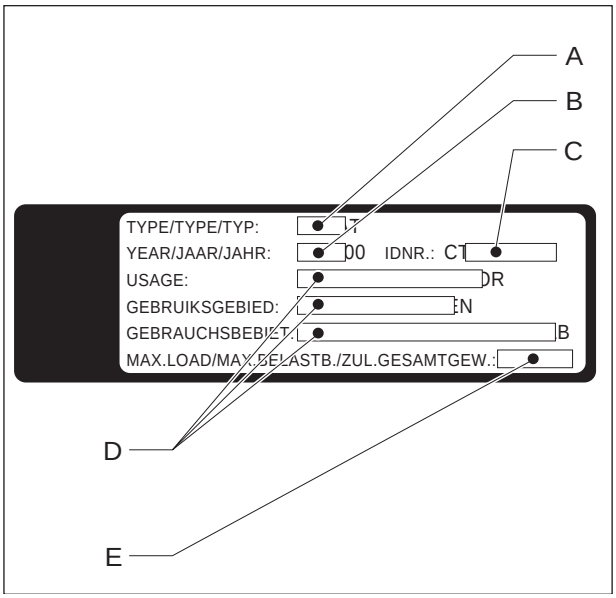
With this manual you can safely use and maintain (clean) the scooter.

Follow the instructions in the warnings! If the instructions are not carefully followed, bodily injury or damage to the scooter or to the environment may result.

Service and technical support

Contact the manufacturer for information concerning specific adjustments, maintenance or repair. Always provide the type, year of manufacture, and identification number, which appear on the identification plate of the scooter.


SCHAKEL DE SCOOTER UIT VOORDAT U IN- OF UITSTAPT. ZO VOORKOMT U DAT DE SCOOTER GAAT RIJDEN ALS U PER ONGELUK EEN GASHENDEL INDRUKT.
E
C
MAX. 2,4 BAR
M
B
A
D
MAX. 2,2 BAR



Labels on the scooter

A. Neutral
B. Identification plate
C. Tyre pressure, front wheel
D. Tyre pressure, rear wheels
E. Warning for getting in and out.

Indentification plate data

A. Model
B. Year of manufacture
C. Identification number
D. Use area indoors or outdoors
E. Maximum load in kg

Approval

The product meets the following requirements:

1. EN12182; 1999 Technical aids for disabled persons.
2. EN12184; 1999 Electrically powered wheelchairs and scooters, class C.
3. ISO7176-8 Requirements for static, impact, and fatigue strength.
4. ISO7176-9 Climate tests for electric wheelchairs and scooters.
5. ISO7176-14 Standards and test methods for controller systems of electrically-driven wheelchairs.
6. ISO7176-16 Requirements for fire resistance.

The product has been awarded EN 12184; 1999 certification for EMC (Electro Magnetic Compatibility).

CE declaration

The product meets the standards of the directive for Medical Devices and is thus provided with the CE marking.

Warranty conditions

The terms used in the warranty and liability stipulations are defined as follows:

- **Product**: The hand-operated or electric wheelchair or scooter manufactured and delivered by Handicare.
- **Customer**: The person who directly obtains a Product from Handicare or an authorised representative.
- **Dealer**: The person who delivers a Product obtained from Handicare to customers or third parties.
- **User**: The person who uses a Product manufactured by Handicare.

Irrespective of what is determined concerning warranty conditions applicable to the Product, in any case the following applies with regard to the warranty:

1. Except insofar as described otherwise Handicare guarantees the Product for its suitability for the purpose for which the Product is intended - all of these points as described in this manual - and for the quality of the material of which the Product is made and the manner in which the Product is manufactured.
2. Repairs or replacement of parts of the Product that may be necessary as a result of faults that are based on qualitatively faulty material or manufacturing errors will be executed free of charge, as long as such faults occurred within one (1) year after the date of delivery of the Product to the Customer. The parts to be replaced must be shipped postage-paid to Handicare. Installation or removal of these parts is for the Customer's account. Therefore, the following cases are not eligible for free repair or replacement as meant above:
   - The repair or replacement that is necessary in connection with faults that arise after one (1) year after the date of delivery of the Product to the Customer;
   - The repair or replacement that is required in connection with faults due to improper or careless use of the Product or that are based on the Product being used for another purpose than the one for which it is intended, in which regard it applies that if the Customer is a Dealer, this Dealer will indemnify Handicare against possible claims from Users or other third parties for faults based on an incorrect or careless use of the Product;
   - Parts that are subject to wear, and the need for repair or replacement of the parts are the actual consequence of normal wear. These can include, but are not limited to, tyres, shrouds, arm-pads, seatings etc.
3. Irrespective of that stipulated under 2, it applies as far as an electric Product is concerned that with regard to the battery that forms part of the Product warranty is only given in case of faults or non-functioning of the battery that are demonstrably the direct consequence of material or manufacturing errors. A fault or non-functioning of the battery as a result of normal wear is not covered by the warranty as meant in these warranty stipulations. Similarly not covered by the warranty are faults or non-functioning that are the consequence of improper or unprofessional use of the Product or the battery that is part of the Product, including the incorrect charging of the battery and the failure to carry out timely and good maintenance, in which context it also applies that if the Customer is a Dealer, this Dealer will indemnify Handicare against possible claims from Users or other third parties that are based on the above mentioned improper or unprofessional use of the Product or the battery that is part of the Product. Handicare does not guarantee batteries provided by dealers or purchased by the customer.
4. The warranty conditions as mentioned in above stipulations in any case become null and void if:
   - The guidelines of Handicare for the maintenance of the Product are not, or insufficiently, followed;
   - A necessary repair or replacement of parts is based on neglect, damage or abuse of the Product or a use of the Product for another purpose than the one for which it was intended;
   - Parts of the Product are replaced by parts of another origin than those used by Handicare and/or parts of the Product are replaced without the permission of Handicare.

5. The warranties as mentioned in stipulations 1 through 3 also become null and void if what is involved is re-used by a new user within the warranty period and that such re-use necessitates adaptations to the product and those adaptations are carried out without the instructions and/or at the order of Handicare.
6. To retain rights under the warranties delineated above, the Customer must, in case of damage or other calamities, as rapidly as possible contact Handicare and inform them as fully as possible. The possibility of taking recourse to the above-mentioned warranty conditions becomes null and void for the Customer in any case after 20 workdays after the claim situation or the calamity arises that was the reason for the recourse to the warranty.
7. The replacement of a part or the repair or the reconditioning of the Product within a current warranty period does not extend the warranty period.
8. Handicare gives no warranty on repair to or reconditioning of the Product carried out other than under order of and/or at the instructions of Handicare. If repairs and/or reconditioning are executed by or on behalf of a Customer, the Customer indemnifies Handicare with respect to the claims of third parties who result, in the broadest sense of the word, from such repairs or reconditioning.

Statement of liability

Irrespective of what is determined regarding liability in the general conditions applicable to the Product, with regard to liability in any case the following applies:

A. Taking into consideration the following stipulations, Handicare only accepts liability for loss due to death or physical injury that is the result of a defect in the Product for which Handicare is responsible and for damage to another object that is the private property of the user of the Product, as long as said loss is the direct result of a fault in the Product.
B. Handicare accepts no other or further liability than delineated under 1. In particular Handicare accepts no liability for consequential damage, in any form whatsoever.

Used scooters and the environment

If your scooter is no longer needed or needs to be replaced, it can usually be taken back by your dealer. If this is not possible, please contact your local authorities for the possibilities of recycling or an environmentally friendly way of disposing of the used materials.

For the production of the scooter several plastics and metals have been used. The scooter also contains electronic components that must go to electronic waste. Used batteries belong to chemical waste.

1 Safety

Handicare accepts no liability whatsoever for damage or injury caused by the failure to strictly adhere to the safety guidelines or due to carelessness during the use and cleaning of the scooter and accessories. Depending on the specific operating circumstances or the accessories used, additional safety instructions may be required. Please contact the manufacturer immediately if you observe any potential danger during the use of the product.

1.1 General

- **The user of the scooter is at all times fully responsible for the fulfilment of the locally applicable safety regulations and guidelines.**
- **The technical specifications must not be altered.**
- **Modifications to (parts of) the scooter are not permitted.**

1.2 Labels on the scooter

- **The labels, symbols and instructions placed on this scooter comprise part of its safety provisions. They may not be covered or removed. They must remain attached and be clearly legible throughout the entire life span of the scooter.**
- **Immediately replace or repair illegible or damaged labels, symbols and instructions. Consult your dealer.**

1.3 Operation

Driving up a slope

- **Never drive up a slope with an angle greater than 14°.**
- **On slopes always drive slowly and with great awareness.**
- **Do not drive down slopes with loose gravel or a sandy surface, because one of the rear wheels might slip.**
- **Avoid sudden and abrupt movements.**
- **Avoid changing directions or turning around on a slope.**
- **Do not turn on a slope.**
- **If you notice a significant decrease in speed when driving on a slope, choose a less steep route.**
- **If you drive on a slope too long, this may result in overheating of the motor.**

Driving down a slope

- **If you need to reverse down a slope, use the lowest setting of the speed controller and drive as slowly and carefully as possible.**
- **It can be very dangerous to reverse down a slope.**

Corners

- **Never take a turn at full speed. Decrease speed when taking a turn.**
- **Use the turn indicators when changing direction.**

Additional

- **Drive carefully on roads that are slippery as a result of rain, ice, or snow!**
- **Prevent the scooter from coming into contact with sea water. Sea water is caustic and may damage the scooter.**
- **Prevent the scooter from coming into contact with sand. Sand can affect the moving parts of the scooter, resulting in unnecessary, rapid wear.**
- **You must not operate the scooter when you are under the influence of drugs, alcohol or medication that could affect your driving ability.**
- **You must have sufficient visual acuity to be able to safely drive the scooter.**
- **It is imperative to turn on the lights in situations with reduced visibility.**
- **When driving at a high speed, you need to be extra careful. Use a lower speed on sidewalks and in pedestrian areas.**
- **Be sure that no items of clothing hang loose. These could become caught between the wheels.**

1.4 Electronic precautions

- The standard version of your scooter was tested according to the strictest EMC requirements. Mobile telephones have no influence on the driving behaviour of the scooter.
  When using a mobile telephone in the

vicinity of a scooter with special adaptations, you must first switch off the scooter.

- Your scooter may influence electromagnetic fields such as alarm systems.
- If the electronics of the scooter are not properly shielded, this may affect sensitive electrical appliances, such as shop alarms and garage openers. The scooter has been tested for this. Should any problems of this nature occur, please report these to the manufacturer immediately.

2 General description

2.1 Description of the Trophy

The Trophy is an electrically driven scooter for use outside, for longer distances. The unique suspension, stability, and manoeuvrability provide excellent drivability and maximum comfort. The numerous adjustments allow the Trophy to be configured to you needs so that a relaxed position of the hands and shoulders is assured. The well-organised control panel can be operated with a light touch of the left or right hand. The Trophy is the scooter of choice for maximum independence!

The Trophy has been designed for:

- Transport of persons with a weight of up to 160 kg.
- Use on paved roads, sidewalks, footways, and bike-ways.
- Use in and around the house.

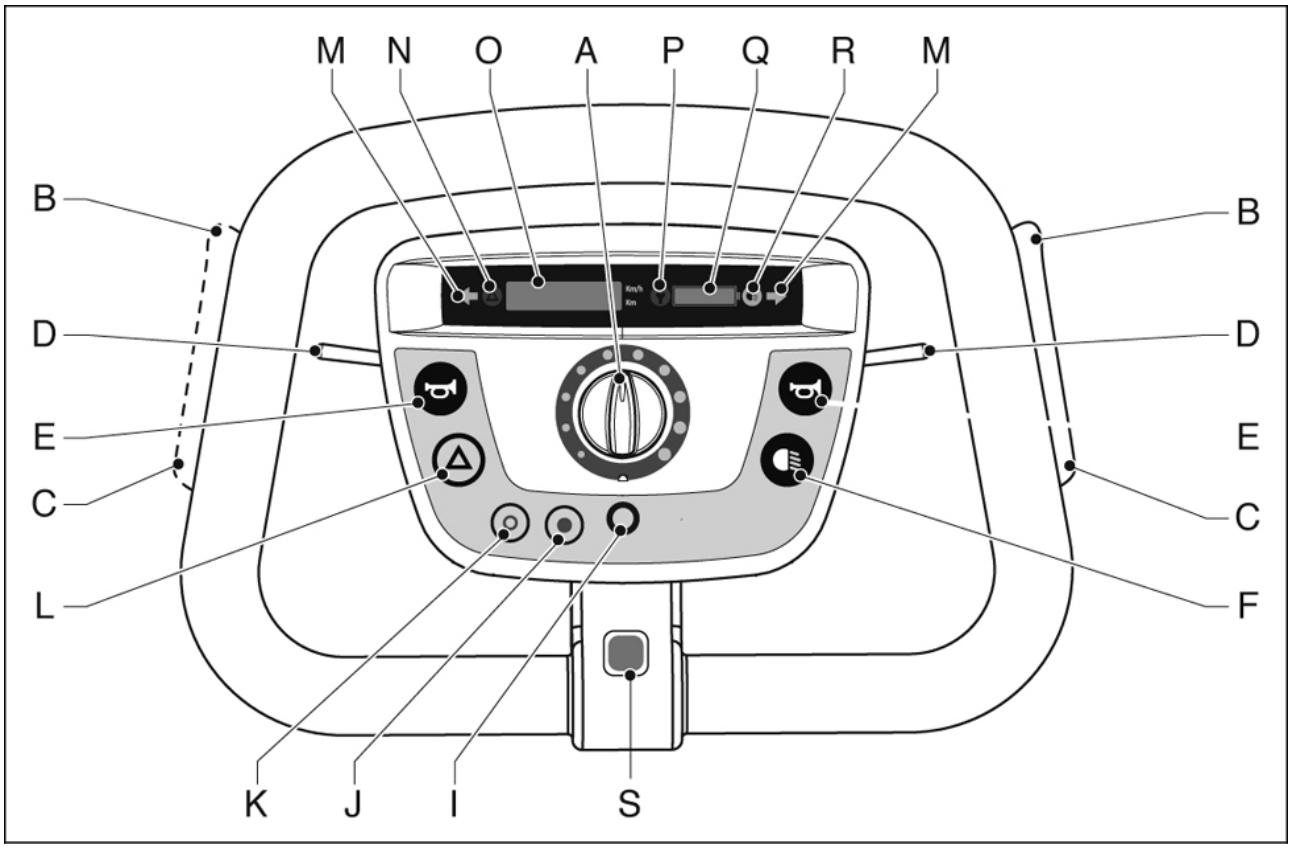
The scooter is not considered a motorised vehicle for traffic regulations.

The Trophy has a maximum speed of 15 km/h.

If you use the scooter for other purposes than those for which it is intended, Handicare accepts no liability whatsoever for damage or injury resulting from such use other than that for which the scooter was developed and designed.

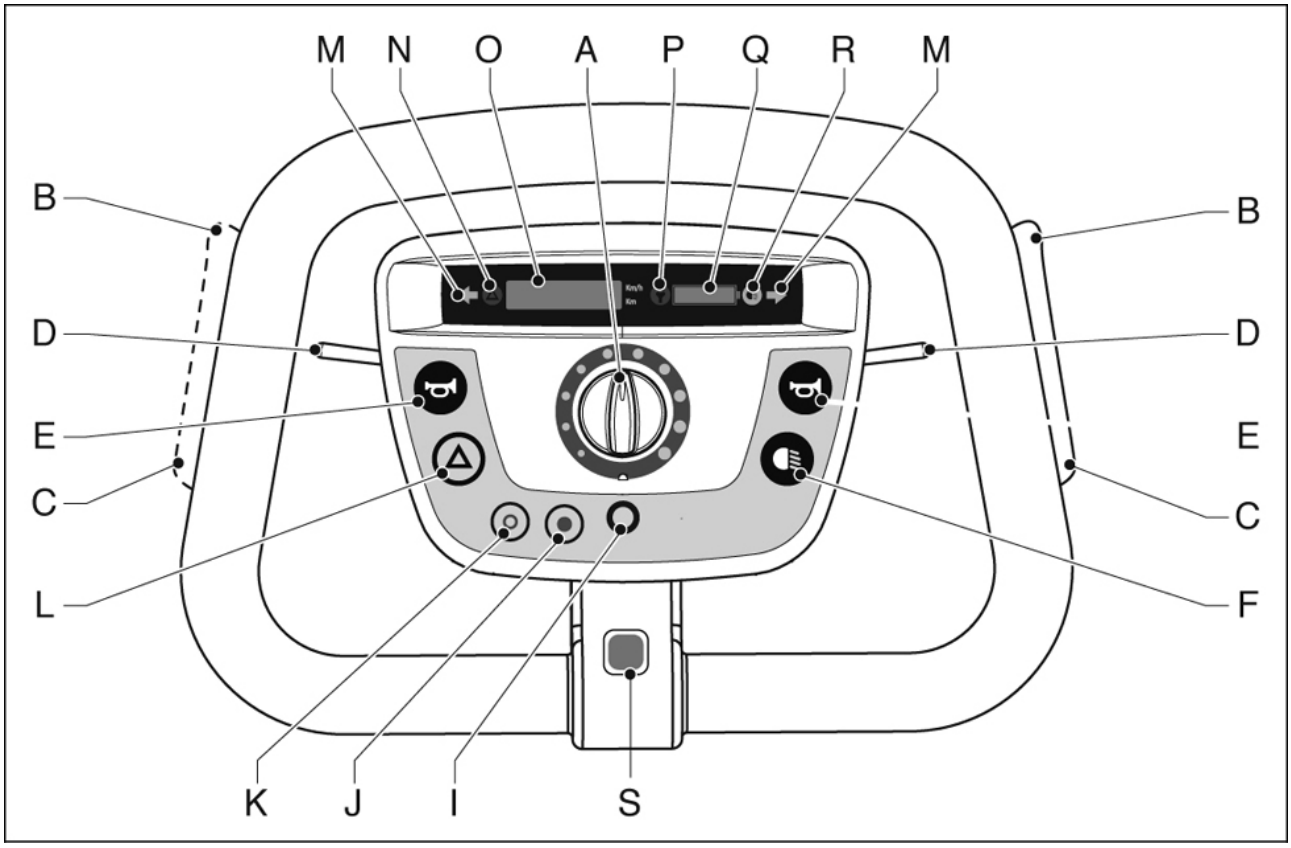
You must be familiar with the contents of this manual before you begin to use the scooter.

2.2 Steering column and dashboard



A. Speed control
B. Throttle handle: reverse
C. Throttle handle: forward
D. Indicators left/right
E. Horn
F. Lighting
I. Selection button for speed, daily distance, or total distance
J. Option: lower (for stool with electric height adjustement, for instance)
K. Option: raise
L. Hazard lights
M. Indicator: turn indicator on
N. Hazard lights on
O. Indicator for speed, daily distance, or total distance
P. Warning light: battery charging
Q. Battery-condition meter
R. Lights on
S. Stop button

2.3 Display menu



User		
R	km/h	Push the I button
R	Daily kilometer counter	Push the I button
R	Reset daily counter	Push the I button (3 sec.)
R	Kilometer total (user)	Push the I button
Dealer		
⚠ + horn	Kilometer total (user)	Hold the hazard light button and press the left horn button briefly
R	Reset total (user)	Push the I button (3 sec.)
⚠ + horn	Kilometer total (scooter)	Hold the hazard light button and press the left horn button briefly
⚠ + horn	Hours-on total (scooter)	Hold the hazard light button and press the left horn button briefly
⚠ + horn	Battery voltage	Hold the hazard light button and press the left horn button briefly
light	Leave dealer menu	Any other button

2.4 Software version identification

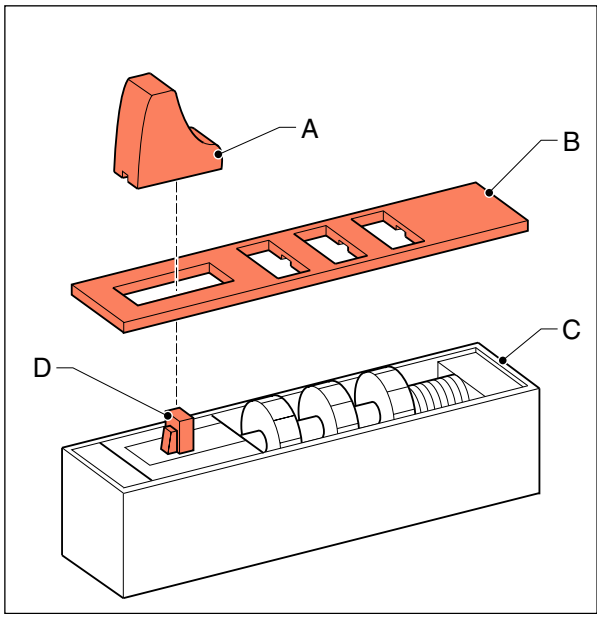
Software versions can be identified by the number which appears in the display when the Trophy is turned on.

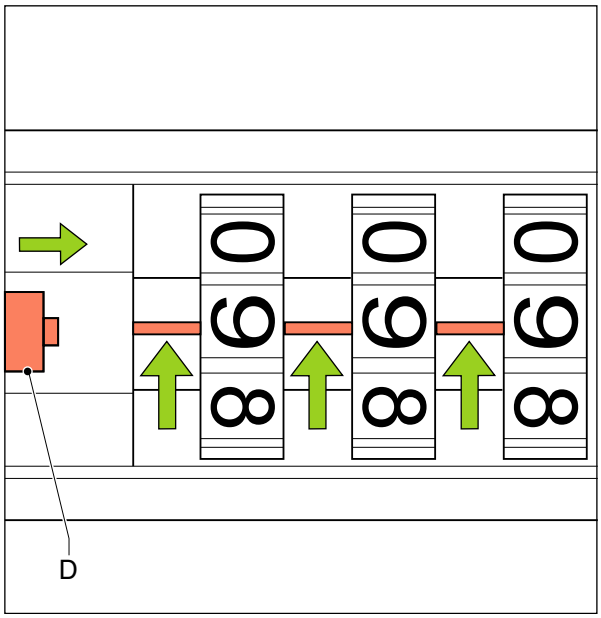
2.5 Functionality and connections in software version 0.20 and lower

Software versions up to 0.20 provide basic functionality. This makes it possible to fit the Trophy with either one foot throttle, one hand throttle or two hand throttles.
See page 22 for diagram.

A combination of foot throttle and finger control is <u>not</u> possible.

Any guarantee on the Trophy is invalidated by the third-party fitting of electronic circuits, other than as described below, which interfere with the finger control or foot throttle signal.





2.6 Forgotten lock combination

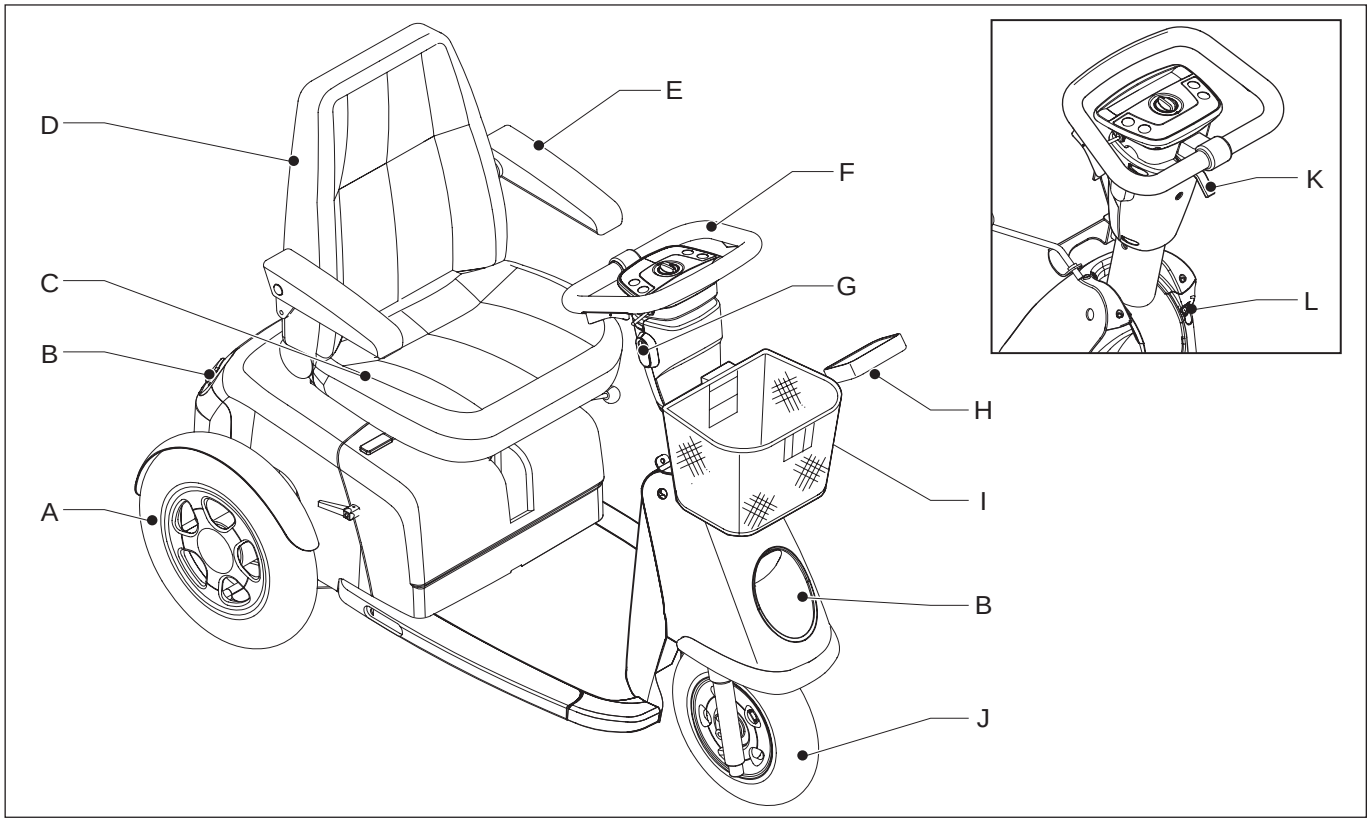
If the combination for the lock on the basket is forgotten, it can be recovered in the following manner.

A. Use an awl to press gently on the red button (A) of the lock housing (C).
C. Use an awl to remove the cover (B) of the lock housing (C).
D. Turn the number wheels until the grooves on the shafts are in alignment.
Work carefully to prevent ejection of the internal parts from the housing!
The code can now be read from the lock.
E. Place the cover on the lock housing: first press the ends into the housing and then the middle.
F. Install the red button (A), if the original combination will be used again.

2.7 Changing lock combination

The combination for the lock on the basket can be changed in the following manner:

A. Use an awl to press gently on the red button (A) of the lock housing (C).
B. Move the button that comes loose (D) in the direction of the wheels.
C. Hold the button in this position and set the wheels to your personal code.
D. Remember this code.
E. Release the button. Your code is set.
F. Install the red button (A). The new code is set.



2.8 Main components

A. Rear wheel
B. Lighting
C. Seat
D. Backrest
E. Armrest
F. Handlebars with dashboard
G. Ignition lock
H. Mirror
I. Basket
J. Front wheel
K. Tilt steering column
L. Charging connection for the batteries

3 Maintenance

3.1 Maintenance table

Time	Description
Daily	Load batteries after every use. See 3.2
Weekly	Check the tyre pressure and fill if necessary. See 3.4
Monthly	Clean scooter. See 3.3
	Clean upholstery, if necessary. See 3.3
	Check batteries (summer: every two weeks; winter: every month). See 3.3
Quarterly	Lubricate turning system of the seat.

3.2 Charging the batteries

Check the manual for the battery charger.

With normal use, the batteries must be recharged every night.

A. Switch off the scooter.
B. Put the plug of the charging cable into the charging connection. See 2.6.
C. Put the plug of the battery charger into the wall socket of the mains power supply.

When the batteries are charged:

A. Take the plug from the charging connection.
B. Take the plug of the battery charger from the wall socket of the mains power supply.

- **The operation of the scooter is switched off as soon as the plug of the charging cable is connected to the charging connection.**
- **Always remove the charging cable when the batteries are charged. This way, you prevent the batteries from slowly depleting themselves.**

3.3 Battery maintenance

Refer to the instructions for the batteries.

- **Make sure that the batteries are always well charged.**
- **Never use the scooter if the batteries are almost depleted, and never allow the batteries to become completely depleted. This can cause serious damage to the batteries and you run the risk of coming to an unintended standstill.**

Cleaning the batteries

Keep the batteries clean and dry. Dirt and water may cause a current leak, reducing the capacity of the batteries. Coat the terminals with acid-free Vaseline after cleaning.

Replacing the batteries

If the capacity of the batteries is reduced to the extent that the scooter can only make very short trips, the batteries are at the end of their life span. The batteries must then be replaced.

3.4 Checking and filling the tyres

- **Make sure to maintain the correct tyre pressure.**
- **Never exceed the indicated tyre pressure.**

Fill the tyres with a foot pump or a bicycle pump. Use the supplied adapter. You can also have the tyres filled at a petrol station.

- Tyre pressure front wheel: 2.4 bar
- Tyre pressure back wheel: 2.2 bar

4 Troubleshooting

4.1 Troubleshooting list

If the scooter doesn't function, while the batteries are fully charged, check the following points.

A. Set the scooter off and then on again. Check if the problem is solved.
B. Check if all the battery connectors are properly attached and firmly connected.
C. Check whether the neutral handle is in the **DRIVE** position.
D. Make sure the position of the speed controller has not changed.
E. If there is a problem, the lights of the battery condition meter flash. Use the table below to determine the cause of the problem.

Indication on the display	Description of problem	Corrective action
The complete LED bar flashes rapidly.	The Egis security has found something that causes a problem	• Switch off the scooter. • Check all connectors. • Check the condition of the batteries. Consult the manufacturer if the LED bar continues flashing after the scooter has been switched on.
The socket LED is lit continuously after the scooter is switched on.	• Short circuit in the potentiometer. • Cabling from the Tiller PCB to the controller interface is defective. • Cabling from the Tiller PCB to the touch control is defective. • Tiller PCB is defective.	• Contact the manufacturer.
The first red LED of the LED bar is lit continuously.	The batteries require charging or there is a poor connection to the batteries.	Check all connections between the controllers and the batteries. If the connections are OK, try recharging the batteries.
The first red LED of the LED bar is lit for 2 seconds, then the complete LED bar flashes once every 5 seconds.	The batteries are being charged.	Disconnect the battery charger from the scooter.
Two LEDs of the LED bar are lit.	There is a poor connection to the motor.	Check all connections between the controller and the motor.
Three LEDs of the LED bar are lit.	There is a short circuit in the motor.	Check the motor cables or replace the motor.
Four LEDs of the LED bar are lit.	The neutral handle is in the neutral position.	Put the neutral handle in the drive position.
Seven LEDs of the LED bar are lit.	The throttle was held in during start up.	Restart the scooter without pressing the throttle
Eight LEDs of the LED bar are lit.	The controller is malfunctioning.	Replace the controller.
Nine LEDs of the LED bar are lit.	The brake is malfunctioning.	• Check the connections between the brake and the controller. • Replace the brake.
Ten LEDs of the LED bar are lit.	The battery is malfunctioning.	• Check the connections between the batteries and the controller. • Check the batteries.

The table below provides explanation for the trip codes that can be indicated by the Egis controller. These trip codes can only be read with the manual programming unit (SP1).

LED code	Trip code	Error type	Explanation
1	2c00	Low battery error	Low battery voltage
1	2c01	Low battery error	Low battery voltage
2	3B01	Motor fault 1	Motor disconnected
3	1400	Bridge fault 1	Motor wiring fault
4	7000	Startup with push selected	Parking brake off
4	7001	Push activated in drive mode	Parking brake off
6	1e03	Inhibit activated	Inhibit active
7	0810	Tiller fault 1	Throttle trip
7	0814	Tiller reference error	Throttle trip
7	0815	Tiller lo reference error	Throttle trip
7	0816	Tiller high reference iso error	Throttle trip
7	0817	Tiller lo reference error	Throttle trip
7	1d02	Front end spec change trip	Throttle potentiometer trip
7	2f01	Tiller displaced error	Throttle displaced at power up
8	0002	Eeprom calibration checksum error 2	Possible controller trip
8	0003	Eeprom program checksum error 2	Possible controller trip
8	0100	Running checksum 1	Possible controller trip
8	0203	Eeprom calibration checksum error 1	Possible controller trip
8	0204	Eeprom program checksum error 1	Possible controller trip
8	1501	Brake fault 2	Possible controller trip
8	1705	Relay fault 1	Possible controller trip
8	1802	Watchdog voltage ref error	Possible controller trip
8	1805	Salty finger ref error	Possible controller trip
8	1b20	Both clamps measuring current	Possible controller trip
8	2102	Progres counter error	Possible controller trip
8	2d01	Front end spec change trip	Possible controller trip
8	3100	Battery bridge difference error 1	Possible controller trip
8	3102	Temperature settings incorrect	Possible controller trip
8	3210	No internal timers	Possible controller trip
8	3211	Internal timer out of range	Possible controller trip
8	3212	Atod readings not finished before next read	Possible controller trip
8	3213	Unknown mux channel	Possible controller trip
8	3600	Hardware error	Possible controller trip
8	3601	Test trip latch 1	Possible controller trip
8	3602	Test trip latch 2	Possible controller trip
8	3603	Test trip latch 3	Possible controller trip
8	3608	Test trip latch 8	Possible controller trip
8	3609	Test trip latch 9	Possible controller trip
8	360a	Test trip latch 10	Possible controller trip
8	360b	Test trip latch 11	Possible controller trip
8	360c	Test trip latch 12	Possible controller trip
8	360d	Test trip latch 13	Possible controller trip
8	360e	Test trip latch 14	Possible controller trip
8	4401	Generic ctrl error	Possible controller trip
9	1500	Brake fault 1	Solenoid brake fault
9	1502	Brake over current error	Solenoid brake fault
10	1600	High battery error	High battery voltage

5 Technical specifications

5.1 Product specification sheet

General	
Model	Trophy
Max. user's weight	125 kg
Max. user's weight of the reinforced version	160 kg
Total length	1400 mm
Total width	660 mm
Weight of heaviest component	90 kg Trophy 3W 101 kg Trophy 4W
Total weight incl. batteries (58 Ah)	155 kg Trophy 3W 166 kg Trophy 4W
Static stability downward	15°
Static stability upward	15°
Static stability sideways	15°
Range of travel ISO 7176 58Ah batteries	40 km
Range of travel ISO 7176 85Ah batteries	60 km
Dynamic stability on slopes	14° Trophy 3W and 4W
Climbing capacity for obstacles	100 mm
Maximum forward speed	15 km/h (standard) 11 km/h (alpine)
Minimum brake distance from maximum speed	min. 2,100 mm max. 2,200 mm
Seat angle	2°
Effective seat depth	440 mm
Effective seat width	460 mm
Sit height at front edge of seat	min. 420 mm max. 550 mm
Back angle	min. 90° max. 180°
Back height	550 mm
Armrest height	min. 180 mm max. 220 mm
Front armrest to backrest	260 mm
Minimum turning radius	1250 mm Trophy 3W 1480 mm Trophy 4W
Capacity to drive over obstacles	100 mm
Ground clearance	70 mm
Turning room	1650 mm Trophy 3W 1940 mm Trophy 4W

Operating force	
Operating handle	< 60 N
Electronic switches	< 13.5 N
Parking brake	< 60 N
Inserting charging plug	< 60 N

Wheels	
Diameter front wheel	12.5" x 2.25"
Diameter rear wheels	3.00x10
Tyre pressure front wheel	240 kPa (2.4 Bar)
Tyre pressure rear wheels	220 kPa (2.2 Bar)
Torque central wheel nut	**50Nn**
Torque central wheel bolt	**90Nm**

Batteries	
Maximum battery dimensions	334x178x253 mm
Weight scooter without batteries	140 kg (25.6")
Maximum battery capacity C20	110 Ah
Maximum battery capacity C5	85 Ah
Maximum permissible charging voltage	13.6 V
Maximum charging current	10 A
Connector type	A DIN 72311

5.2 Controller settings PG Drives EGIS 110

Trophy 3 and 4 wheel standard

Function	Range	Resolution	High	Low
Forward Acceleration	0.1 to 10s, Fast/Slow	100 ms	25	25
Forward Deceleration	0.1 to 10s, Fast/Slow	100 ms	13	13
Reverse Acceleration	0.1 to 10s, Fast/Slow	100 ms	40	40
Reverse Deceleration	0.1 to 10s, Fast/Slow	100 ms	25	25
Forward speed	0 to 100%, Fast/Slow	1%	100	100
Reverse Speed	0 to 100%, Fast/Slow	1%	50	50
Invert Throttle Polarity	Yes/No		Yes	
Power Down Timer	0 to 20 minutes	1 min	0	
Help Mode	On-line help text	*	Not programmable	
Diagnostics	Fault codes from Solo	*	Not programmable	
Current Limit	20A to max rating	1A (25.6")	110	
Motor Compensation	0 to 1 W	5 mW	45	
Hold Factor	100 to 420%	4%	160	
Mid Current	0 to 100%, 1 to 255 s	1%, 1 s	15, 50	
Brake Time	0 to 1 s	10 ms	60	
ISO Test	On / Off		On	
Inhibit Polarity	Hi / Lo		1	
Bridge Hold Time	0 to 5 s	20 ms	80	
Throttle Gain	0 to 1,250%	5%	130	
Pulse Reverse Alarm	Yes/No		NO	
Wig-wag Throttle	Yes/No		Yes	
Low Battery Flash Inhibit	Yes/No		No	
Throttle Deadband	3% to 100%	1%	15	
Output Voltage	20 to 40V	1V (25.6")	24	
TruCharge Cable Resistance	10 to 250 mOhm	5 mOhm	90	
TruCharge Cal.	1 to 200		97	
Profile values	-		40	80
Scale I factor	-		80	
Scale V factor	-		157	
Options register	-		1	
I limit reduction	-		-	
Abs I factor	-		-	
Demand clipping	-		-	-
Solo mode	-		11	

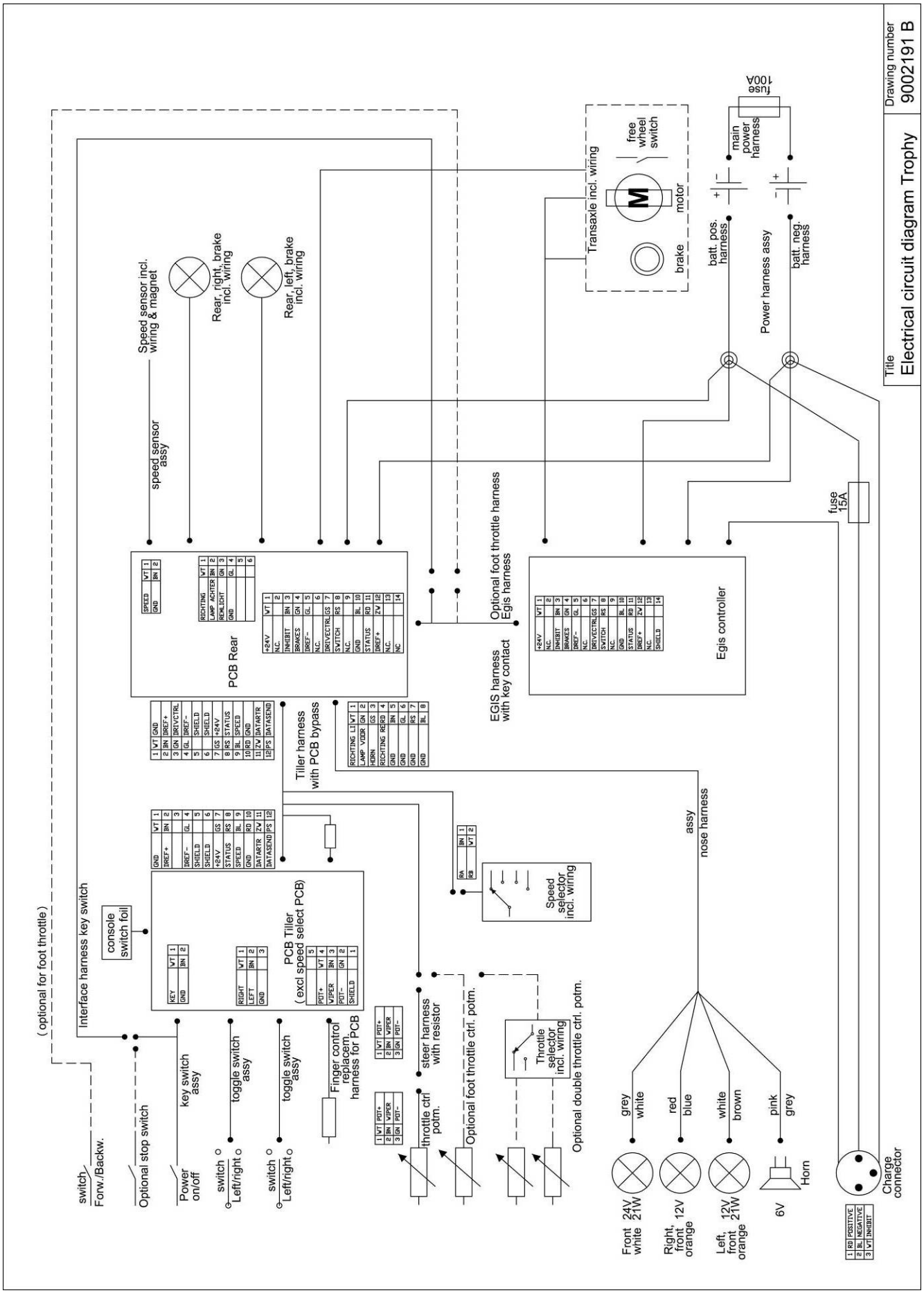
Trophy with foot throttle (software versie 0.20 en lager)

Function	Range	Resolution	High	Low
Forward Acceleration	0.1 to 10s, Fast/Slow	100 ms	25	25
Forward Deceleration	0.1 to 10s, Fast/Slow	100 ms	13	13
Reverse Acceleration	0.1 to 10s, Fast/Slow	100 ms	40	40
Reverse Deceleration	0.1 to 10s, Fast/Slow	100 ms	25	25
Forward speed	0 to 100%, Fast/Slow	1%	100	100
Reverse Speed	0 to 100%, Fast/Slow	1%	40	40
Invert Throttle Polarity	Yes/No		No	
Power Down Timer	0 to 20 minutes	1 min	0	
Help Mode	On-line help text	*	Not programmable	
Diagnostics	Fault codes from Solo	*	Not programmable	
Current Limit	20A to max rating	1A	110	
Motor Compensation	0 to 1W	5 mW	45	
Hold Factor	100 to 420%	4%	156	
Mid Current	0 to 100%, 1 to 255s	1%, 1s	15, 50	
Brake Time	0 to 1s	10 ms	60	
ISO Test	On / Off		On	
Inhibit Polarity	Hi / Lo		1	
Bridge Hold Time	0 to 5s	20 ms	80	
Throttle Gain	0 to 1250%	5%	150 (till 08-04-2008 120)	
Pulse Reverse Alarm	Yes / No		No	
Wig-wag Throttle	Yes / No		No	
Low Battery Flash Inhibit	Yes / No		No	
Throttle Deadband	3% to 100%	1%	15	
Output Voltage	20 to 40V	1V	24	
TruCharge Cable Resistance	10 to 250 mOhm	5 mOhm	90	
TruCharge Cal.	1 to 200		97	
Profile values	-		40	80
Scale I factor	-		80	
Scale V factor	-		157	
Options register	-		1	
I limit reduction	-		-	
Abs I factor	-		-	
Demand clipping	-		-	-
Solo mode	-		11	

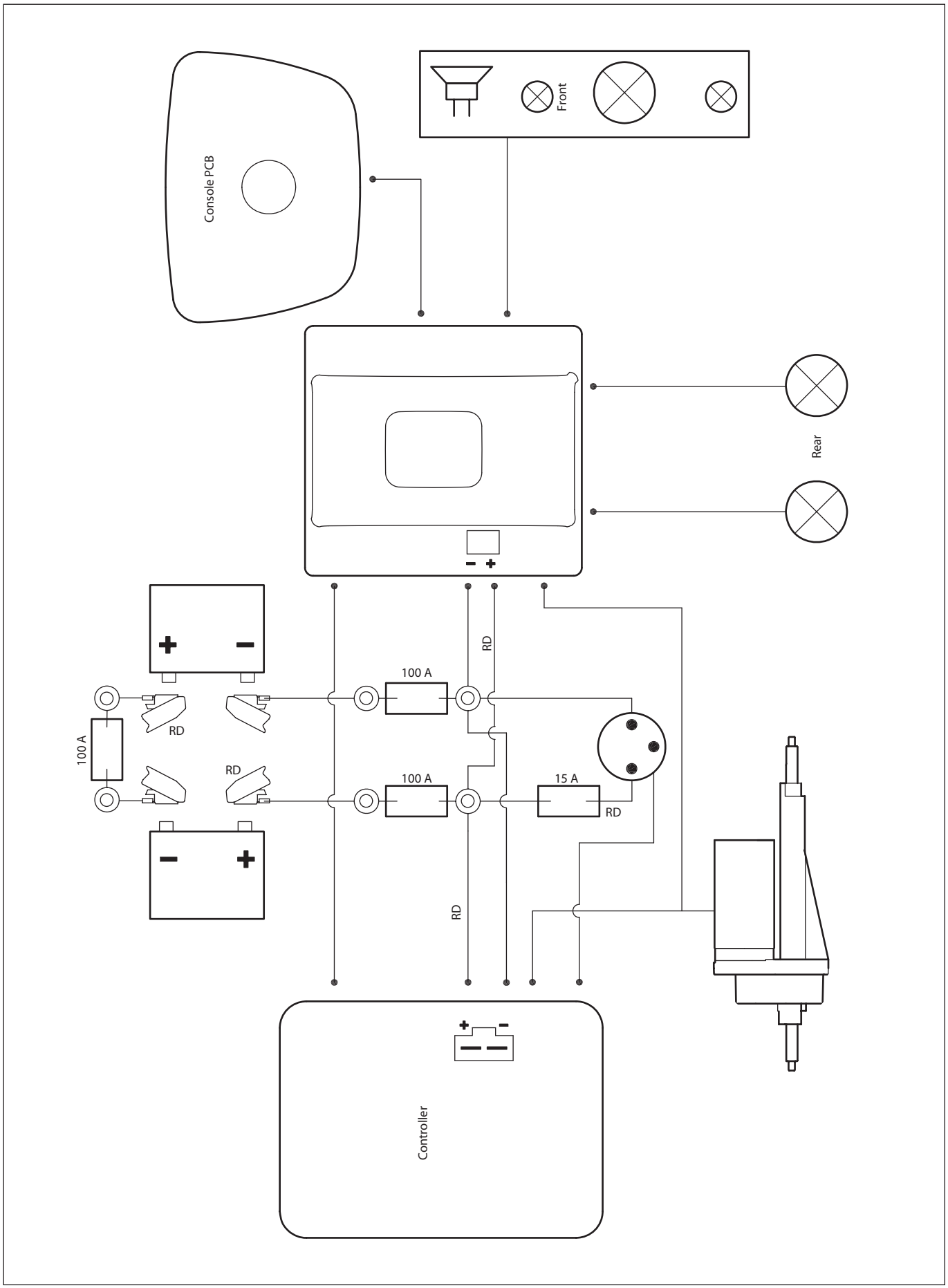
5.3 Data sheet

Description			Remarks
Nominal voltage	24	V	
Main current protection	100	A	
Max. grade percentage	28	%	
Motor power	620 Trophy 3 and 4W 500 Trophy Alpine	Watt	
Motor reduction	18	i	
Parking brake	10	Nm	
Wheel diameter, front	320	mm	12.5x2.25
Wheel diameter, rear	410	mm	3.00x10
Tyre type, rear	Kenda K422-02		K6366-TW 8934,
Tyre type, front	Cheng shin C628-11		62-302
Tyre pressure, front	2.4	bar	40 PSI
Tyre pressure, rear	2.2	bar	36 PSI
Maximum dimensions batteries	334x178x253	mm	
Battery connections	A DIN 72311		
Maximum permissible charging voltage	13.6	V	
Maximum permitted lead current from the charger	12	A	
Maximum battery capacity	110	Ah	
Bottom clearance, maximum load	80	mm	
Obstacle height, maximum load	70	mm	
Weight without batteries	110	kg	

5.4 Electrical diagram Trophy



5.5 Wiring Trophy (version1)

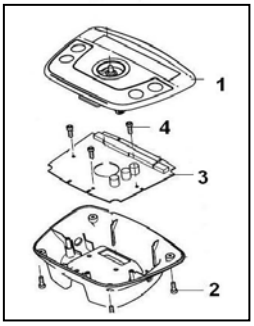


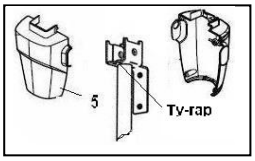
5.6 Mounting instruction throttle

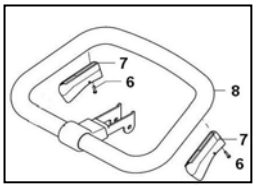
The gas throttle is an important part of the Trophy scooter. Correct dismounting and mounting of the gas throttle is required. The following instructions describe the correct actions to be taken.

1. Unscrewing the gas throttle(s)/cover plate and the console.

1. Disconnect the batteries
2. Remove the console panel (1) (4 screws) and disconnect the console panel harnesses.
3. Remove the tiller PCB (3) (3 screws).
4. Remove the front tiller cover (5) (4 screws) from the steering column
5. Remove the ty-rap which functions as a pull relief for the wiring.
6. Remove the screws (6) from the throttle levers (7). Take the throttle levers out the steering wheel.
7. Guide the steering harness from the console. The tiller PCB should be lifted to do this. Never pull on a throttle lever or on a connector. This can result in serious product faults.
8. Disconnecting the gas throttle connector requires precise handling. For the best result use a small flat screw driver. Push the tip of the screwdriver under the foremost (longest) lip and gently pull the connectors. The connectors will come loose and the gas throttle can be removed.

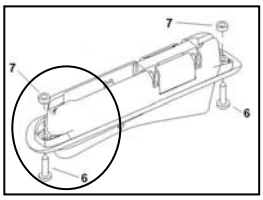






2. Mounting the gas throttle

1. Assemble the two included white plastic bushes (7) in combination with the two mounting screws (6).
2. Attach the connector of the gas throttle to the connector of steer harness.
3. Guide the cable steer harness gently in the steer towards the console. Guide the harness from the console. Make sure the gas throttle connector is positioned inside the steering wheel metalwork. The gas throttle can be assembled.



4. Assemble the gas throttle (7 and 6). **WARNING: Assembly of the screws until the black steering wheel material starts to deform. Afterwards the gas throttle must be checked on normal freedom of movement. This can be checked by moving the gas throttle to reverse and to forward direction. The gas throttle must return by itself to its middle position. The gas throttle should not stick! If the gas throttle sticks, loosen the screws a few turns, until sticking of the gas throttle disappears.**
   If the problem still exists, please contact service department of Handicare.

5. Assemble the tiller pcb (3). (3 screws) ATTENTION: Place the gas throttle harnesses in the outermost corners of the console. Make sure that no harness is visible through the middle hole of the PCB. (This is the space for the speed switch on the console panel.)
6. Assemble the console panel (1) (4 screws). Connect the console panel harnesses. The harness from the speed switch should be routed underneath the tiller PCB.
7. Assemble the pull relief with the supplied ty-rap to the steering column.
8. Assemble the tiller cover (5) (4 screws)
9. Connect the batteries.
10. Turn the scooter on and test the gas throttles. If in doubt, always contact the service department of Handicare. Tel: +31 492 593897

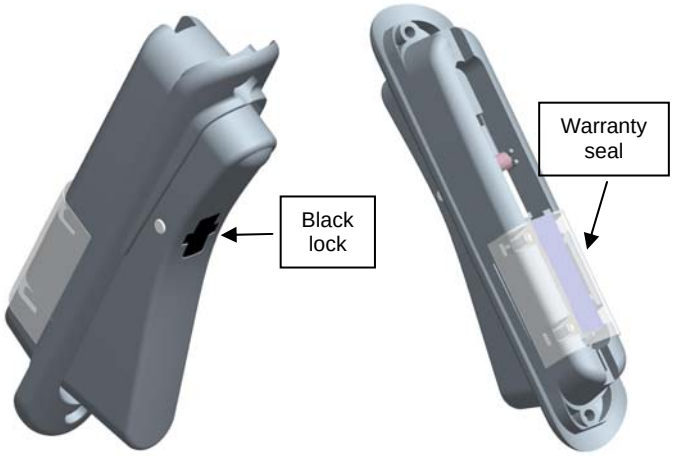
5.7 Different types of throttle controls

Red throttle control:

Never use on an updated product.
See label near serial number.

Grey throttle control:

Never use on an updated product.
See label near serial number.



Grey throttle control with black lock and warranty seal:

Only use on an updated product.
See label near serial number.
Never use on other models!

5.8 Mounting instructions throttle controls

5.8.1 Converting throttle controls.

Safety comes first in the present design of the gas throttle circuit. This means that a build to order Trophy is specifically build to the requested configuration. There is no more 'loose' wiring to make rebuild afterwards easier. This means that converting the gas throttles would require pulling electrical wiring through the steering wheel.

To make this conversion easier and safer for the dealer we have created an exchange pool of complete steering wheels with throttles and wiring. You can buy an exchange steering wheel, rebuild the Trophy and return the 'old' steering wheel. This way it costs you little time, you can realize a swift rebuild with little waiting time for the end user and do it in the safest way.

Loose cables will no longer be available as parts delivery. Our advice in converting gas throttles is to always use an exchange- or new steering wheel assembly.

Partnumber	Description	Price 2008	Terugkoop bruto
1008342	Revision steering wheel with left throttle	£138,00	£89,70
1008343	Revision steering wheel with right throttle	£138,00	£89,70
1008344	Revision steering wheel with dual throttle	£196,65	£127,65

5.8.2 Converting from single to dual throttle control.

See drawing 1. (page 29)

1. Disconnect the batteries from the electronics.
2. Loosen the control panel (02) by unscrewing the screws (13).
3. Disconnect the cables from the control panel (02).
4. Unscrew the front cover from the steering column.
5. Remove the strain relief (Ty-Rap) from the cables. The strain relief is attached to the steering column steelwork.
6. Loosen the tiller PCB (11) by unscrewing the screws (09).
7. Unscrew the rear cover (15) from the steering column.
8. Loosen the steering wheel (03)

See drawing 2. (page 30)

1. Mount the new steering wheel with the wanted configuration.
2. Drill holes for the switch in the cover (32). See drawing no. 3 for dimensions.
3. Replace the cover (32) on the steering column.
4. Mount the switch (30) in the cover (32) and connect it to the main wire harness splice (12)
5. Affix the sticker (31) next to the switch (30).
6. Mount the tiller PCB (11), reconnecting the cables on doing so. **CAUTION: When replacing the tiller PCB, cables must be placed in the far corners of the console. No cables may be visible through the middle hole of the tiller PCB. (This is where the speed change switch is positioned when the console is replaced).**

7. Replace the control panel (02) on the console, reconnecting the cables on doing so. The cable for the speed change switch must be guided through under the tiller PCB.
8. Mount the strain relief (Ty-Rap) on the steering column.
9. Mount the steering column front cover using the four screws.
10. Reconnect the batteries.
11. Turn on the ignition and test whether the throttle controls are working properly.

5.8.3 Converting from single throttle control to foot throttle control.

See drawing 1. (page 29)

1. Disconnect the batteries from the electronics.
2. Loosen the control panel (02) by unscrewing the screws (13).
3. Disconnect the cables from the control panel (02).
4. Unscrew the front cover from the steering column.
5. Remove the strain relief (Ty-Rap) from the cables. The strain relief is attached to the steering column steelwork.
6. Loosen the tiller PCB by unscrewing the screws (09).
7. Unscrew the rear cover (15) from the steering column.
8. Loosen the screws (8) and remove the throttle control (06) from the steering controls.
   CAUTION: When removing the throttle control, always guide the cable from the console. Never pull on the throttle controls or the plug. Precision is required for disconnecting the plug from the throttle control. Place a small, flat screwdriver under the long lip at the front and gently pull one of the connectors. The connectors come loose and the throttle control can be removed.
9. Remove the throttle control cable (05) from the steering controls (03).
10. Remove cable (18) from the controller (19) and the controller interface (20).

See drawing 3. (page 31)

1. Mount cover (04) on the steering controls (03) using screws (08).
2. Drill holes for the switch (40) in the cover (32). See drawing no. 5 for dimensions. (page 33)
3. Replace the cover (32) on the steering column.
4. Mount cable (42) between the controller (19) and the controller interface (20). Ensure that the side with the two taps is connected to the Egis controller.
5. Mount the switch (40) in the cover (32) and connect the cable to the tap of the interface cable (42).
6. Affix sticker (31) next to the switch (30). Mount the foot throttle pedal in the desired position.
7. Guide the foot throttle cable (41) through the steering column and out at the top and connect it to the main wire harness splice (12).
8. Mount the tiller PCB (11). **CAUTION: When replacing the tiller PCB, cables must be placed in the far corners of the console. No cables may be visible through the middle hole of the tiller PCB. (This is where the speed change switch is positioned when the console is replaced).**
9. Replace the control panel (02) on the console, reconnecting the cables on doing so. The cable for the speed change switch must be guided through under the tiller PCB.
10. Mount the strain relief (Ty-Rap) on the steering column.
11. Mount the steering column front cover using the four screws.
12. Reconnect the batteries.
13. Programme the controller for foot throttle control:
    Throttle gain: 120% (was 100%)
    Throttle dead band: 15% (was 10%)
    Invert Throttle: No (was yes)
    Wigwag throttle: No (was yes)
14. Turn on the ignition and test whether the foot throttle is working properly.

5.8.4 Converting from single throttle control to twist grip throttle control.

See drawing 1. (page 29)

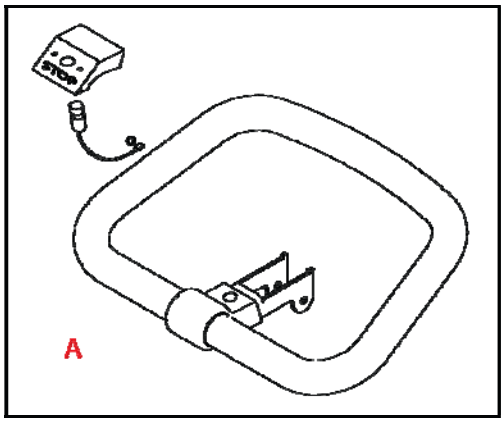
1. Disconnect the batteries from the electronics.
2. Loosen the control panel (02) by unscrewing the screws (13).
3. Disconnect the cables from the control panel (02).
4. Unscrew the front cover from the steering column.
5. Remove the strain relief (Ty-Rap) from the cables. The strain relief is attached to the steering column steelwork.
6. Loosen the tiller PCB by unscrewing the screws (09).
7. Unscrew the rear cover (15) from the steering column.
8. Unscrew the console from the steering controls.
9. Unscrew the steering controls from the steering column.
10. Remove cable (18) from the controller (19) and the controller interface (20).

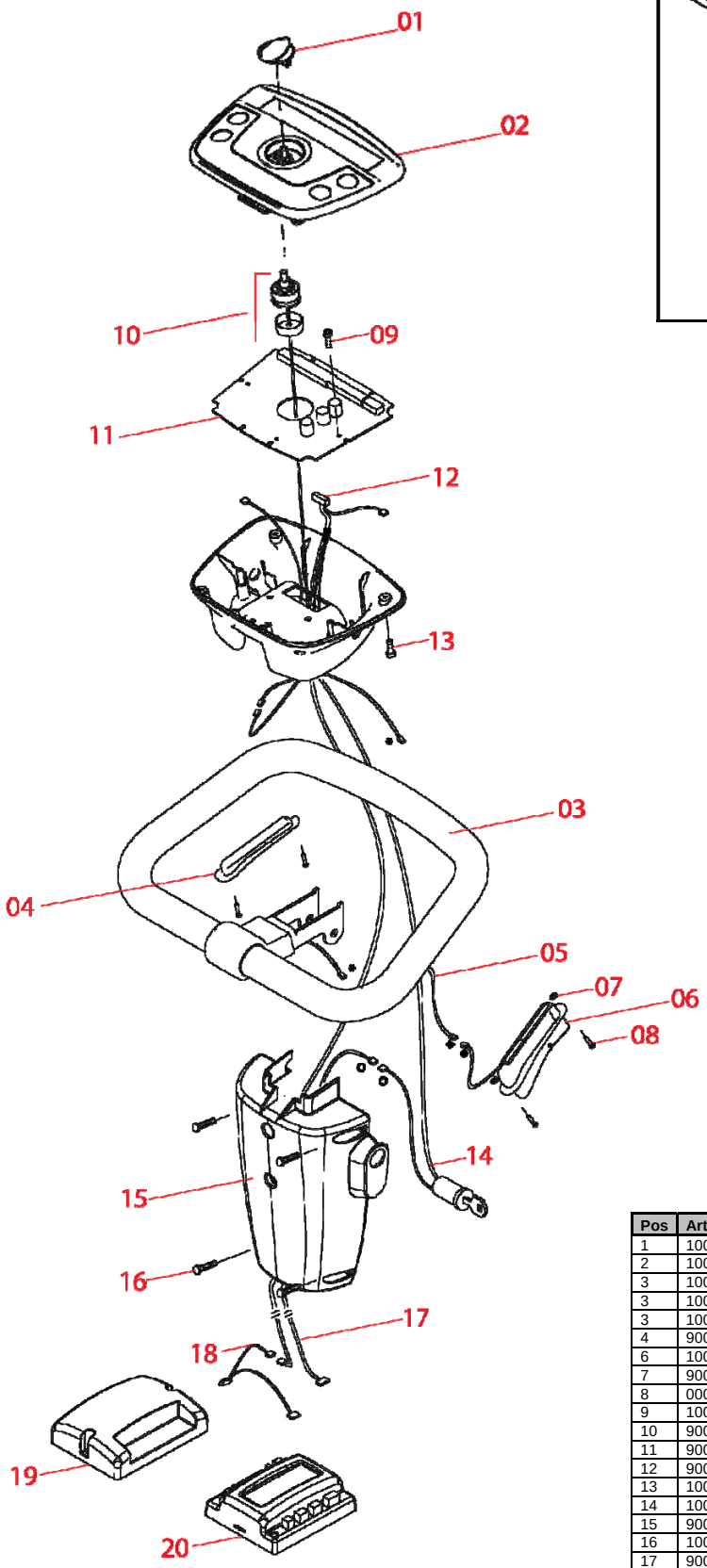
See drawing 4. (page 32)

1. Mount the twist grip controls (50) on the steering column and connect the twist grip throttle cable to the main wire harness splice (12).
2. Drill holes for the switch (40) in the cover (32). See drawing no. 5 for dimensions. (page 33)
3. Replace the cover (32) on the steering column.
4. Mount cable (42) between the controller (19) and the controller interface (20). Ensure that the side with the two taps is connected to the Egis controller.
5. Mount the switch (40) in the cover (32) and connect the cable to the tap of the interface cable (42).
6. Affix the sticker (31) next to the switch (30).
7. Mount the tiller PCB (11). **CAUTION**: **When replacing the tiller PCB, cables must be placed in the far corners of the console. No cables may be visible through the middle hole of the tiller PCB. (This is where the speed change switch is positioned when the console is replaced).**

8. Replace the control panel (02) on the console, reconnecting the cables on doing so. The cable for the speed change switch must be guided through under the tiller PCB.
9. Mount the strain relief (Ty-Rap) on the steering column.
10. Mount the steering column front cover using the four screws.
11. Reconnect the batteries.
12. Programme the controller for twist grip throttle control:
    Throttle gain: 120% (was 100%)
    Throttle dead band: 15% (was 10%)
    Invert Throttle: No (was yes)
    Wigwag throttle: No (was yes)
13. Turn on the ignition and test whether the twist grip throttle is working properly.

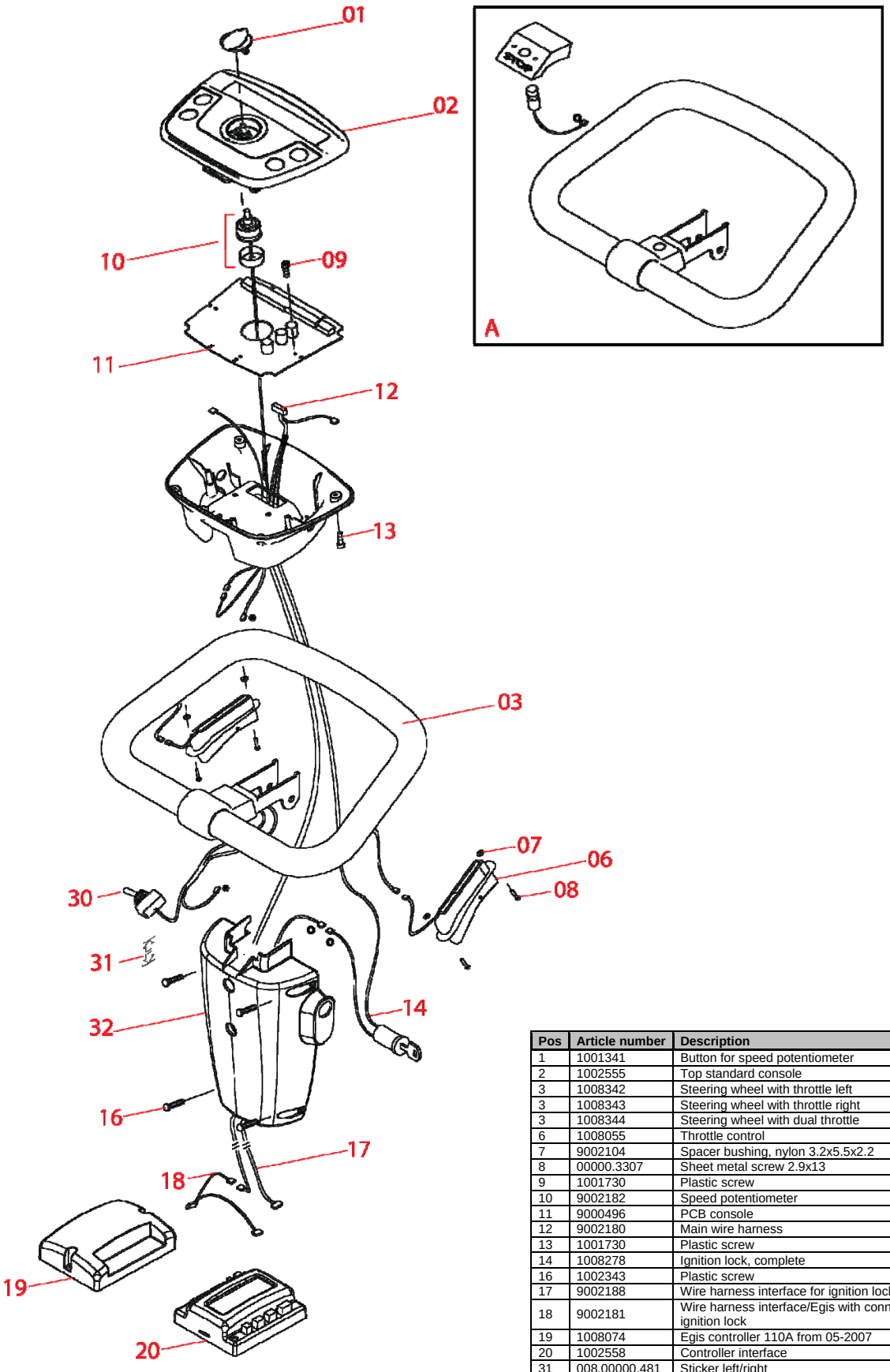
Trophy standard with single throttle. (drawing 1)





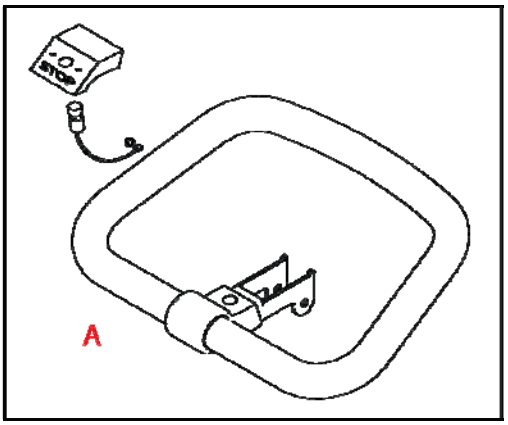
Pos	Article number	Description
1	1001341	Button for speed potentiometer
2	1002555	Top standard console
3	1008342	Steering wheel with throttle left
3	1008343	Steering wheel with throttle right
3	1008344	Steering wheel with dual throttle
4	9001230	Cover for Trophy steering controls
6	1008055	Throttle control
7	9002104	Spacer bushing, nylon 3.2x5.5x2.2
8	00000.3307	Sheet metal screw 2.9x13
9	1001730	Plastic screw
10	9002182	Speed potentiometer
11	9000496	PCB console
12	9002180	Main wire harness
13	1001730	Plastic screw
14	1008278	Ignition lock, complete
15	9002194	Rear cover, steering column.
16	1002343	Plastic screw
17	9002188	Wire harness interface for ignition lock
18	9002181	Wire harness interface/Egis with connection, ignition lock
19	1008074	Egis controller 110A from 05-2007
20	1002558	Controller interface
A		Stop button

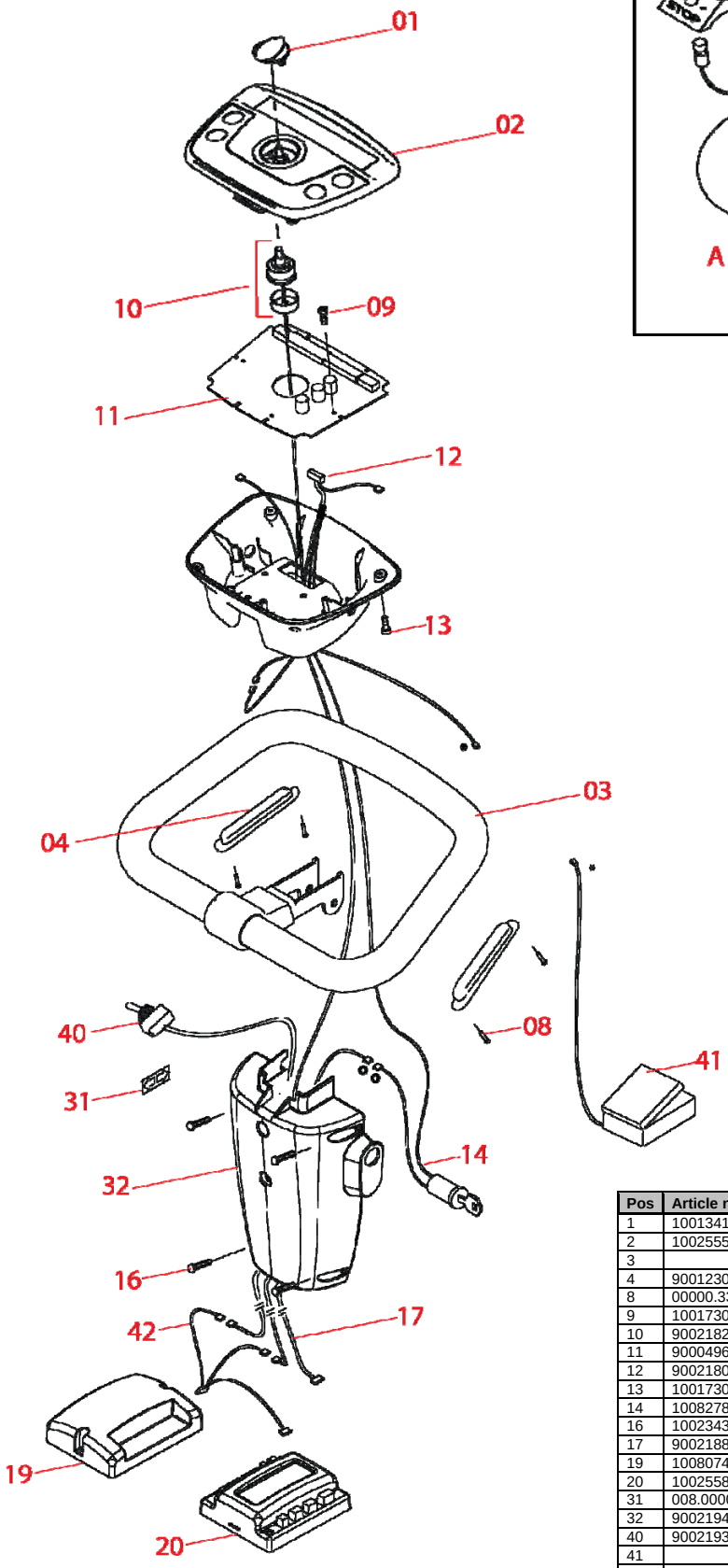
Trophy with dual throttle. (drawing 2)



Pos	Article number	Description
1	1001341	Button for speed potentiometer
2	1002555	Top standard console
3	1008342	Steering wheel with throttle left
3	1008343	Steering wheel with throttle right
3	1008344	Steering wheel with dual throttle
6	1008055	Throttle control
7	9002104	Spacer bushing, nylon 3.2x5.5x2.2
8	00000.3307	Sheet metal screw 2.9x13
9	1001730	Plastic screw
10	9002182	Speed potentiometer
11	9000496	PCB console
12	9002180	Main wire harness
13	1001730	Plastic screw
14	1008278	Ignition lock, complete
16	1002343	Plastic screw
17	9002188	Wire harness interface for ignition lock
18	9002181	Wire harness interface/Egis with connection, ignition lock
19	1008074	Egis controller 110A from 05-2007
20	1002558	Controller interface
31	008.00000.481	Sticker left/right
32	9002194	Rear cover, steering column for switch
A		Stop button

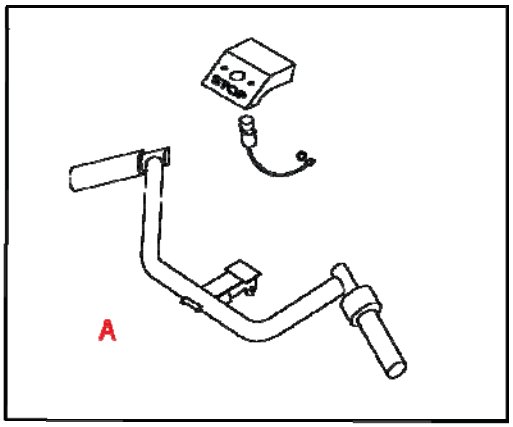
Trophy with foot throttle (drawing 3)

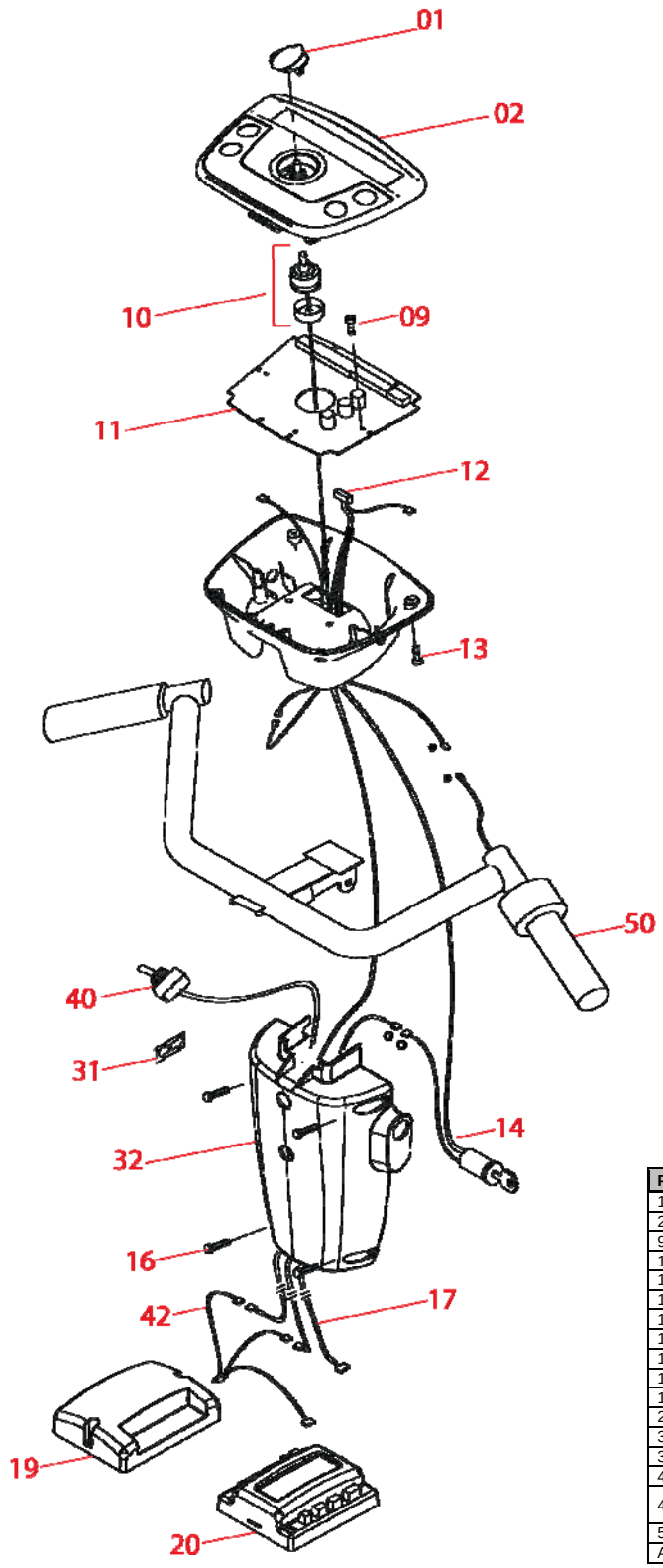




Pos	Article number	Description
1	1001341	Button for speed potentiometer
2	1002555	Top standard console
3		Trophy steering controls
4	9001230	Cover for Trophy steering controls
8	00000.3307	Sheet metal screw 2.9x13
9	1001730	Plastic screw
10	9002182	Speed potentiometer
11	9000496	PCB console
12	9002180	Main wire harness
13	1001730	Plastic screw
14	1008278	Ignition lock, complete
16	1002343	Plastic screw
17	9002188	Wire harness interface for ignition lock
19	1008074	Egis controller 110A from 05-2007
20	1002558	Controller interface
31	008.00000.481	Sticker left/right
32	9002194	Rear cover, steering column for switch
40	9002193	Cable with switch for foot throttle
41		Foot throttle pedal
42	9002190	Wire harness interface/Egis with connection, ignition lock/foot throttle
A		Stop button

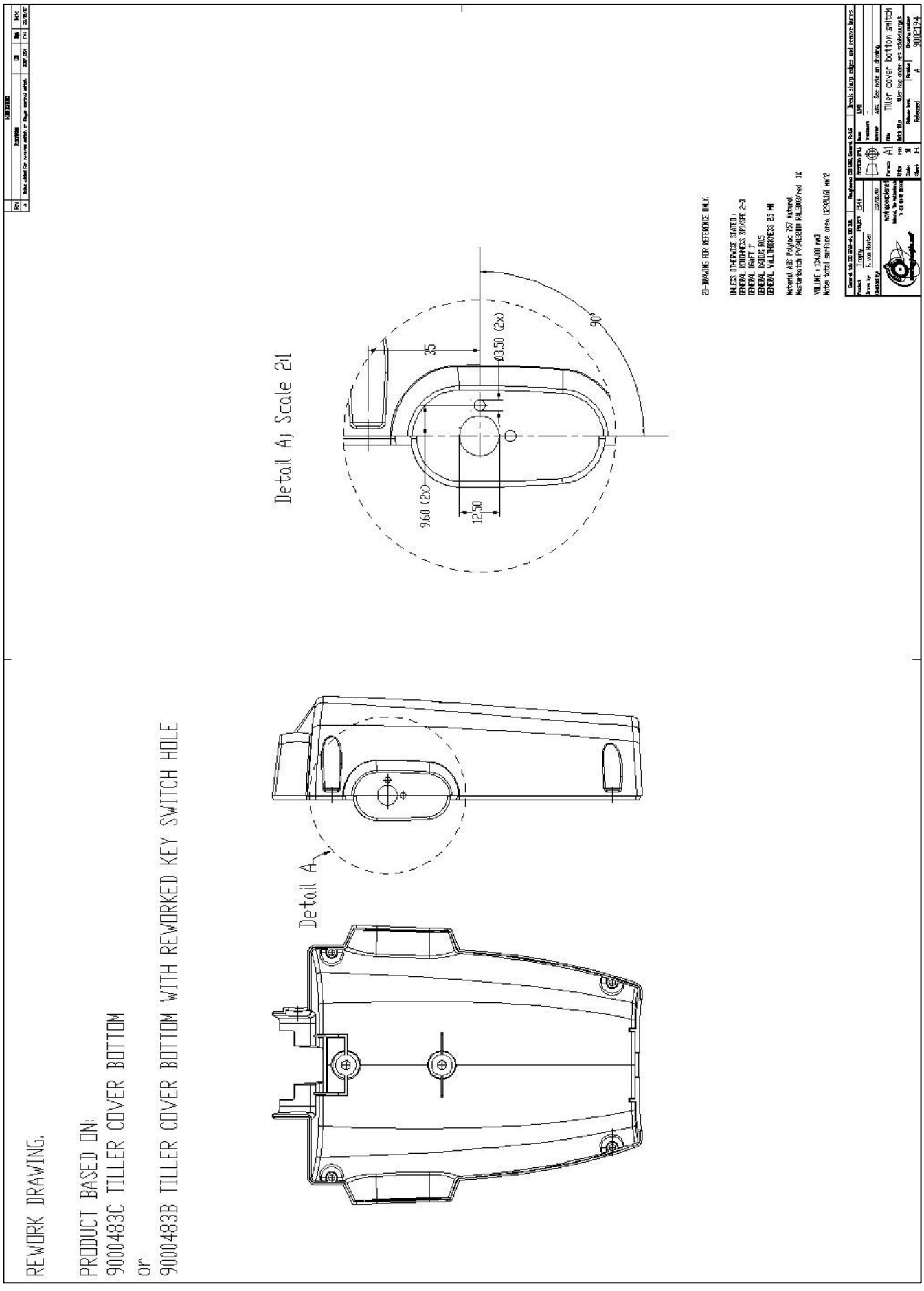
Trophy with twist grip throttle control. (drawing 4)





Pos	Article number	Description
1	1001341	Button for speed potentiometer
2	1002555	Top standard console
9	1001730	Plastic screw
10	9002182	Speed potentiometer
11	9000496	PCB console
12	9002180	Main wire harness
13	1001730	Plastic screw
14	1008278	Ignition lock, complete
16	1002343	Plastic screw
17	9002188	Wire harness interface for ignition lock
19	1008074	Egis controller 110A from 05-2007
20	1002558	Controller interface
31	008.00000.481	Sticker left/right
32	9002194	Rear cover, steering column for switch
40	9002193	Cable with switch for foot throttle
42	9002190	Wire harness interface/Egis with connection, ignition lock/foot throttle
50		T-bar with twist grip throttle control
A		Stop button

Rear cover steering column. (drawing 5)



6 Use of the parts lists

6.1 How to order

This document is meant as a reference book to be used to order parts for the wheelchair that is shown on the front cover.

How to order:
When ordering parts, please specify:

- Serial number (see the identification plate).
- Group (to which the relevant part belongs).
- Article number.
- Number of parts required.
- Description (in the relevant language).
- Dimensions (if applicable).

Remarks:
- If a part does not have a position number, it means that the part concerned cannot be purchased separately. The part concerned is part of the assembly shown. This assembly must be ordered as one piece. It has to be replaced in its entirety.
- Boxed position numbers refer to the relevant drawing.

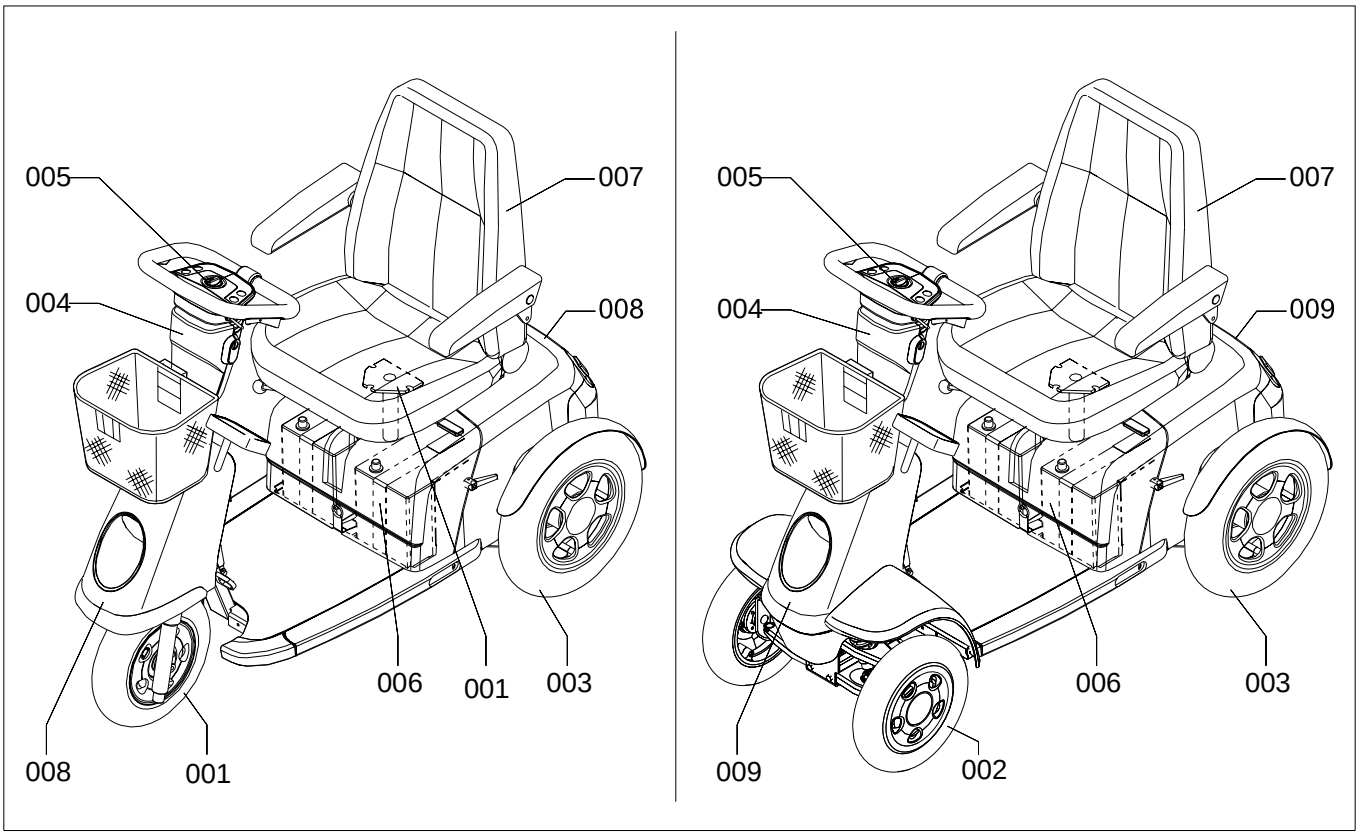
Order address:
Please mail or fax your orders to your supplier.

Service technicians:
Repairs may only be carried out by trained and authorised service technicians.

During the execution of their work they are at all times fully responsible for the fulfilment of locally applicable safety guidelines and standards.

Temporary employees and persons in training may only carry out repair and replacement work under the supervision of an authorised service technician.

7 Overview exploded views



Drawing	Description	Page
001	Front frame, front fork, and front wheel Trophy 3W	36
002	Front frame, frontwheelsuspension and front wheel Trophy 4W	37
003	Rear frame, drive unit and rear wheel	38
004	Steering column, mirror and basket	39
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008	Covers Trophy 3W	43
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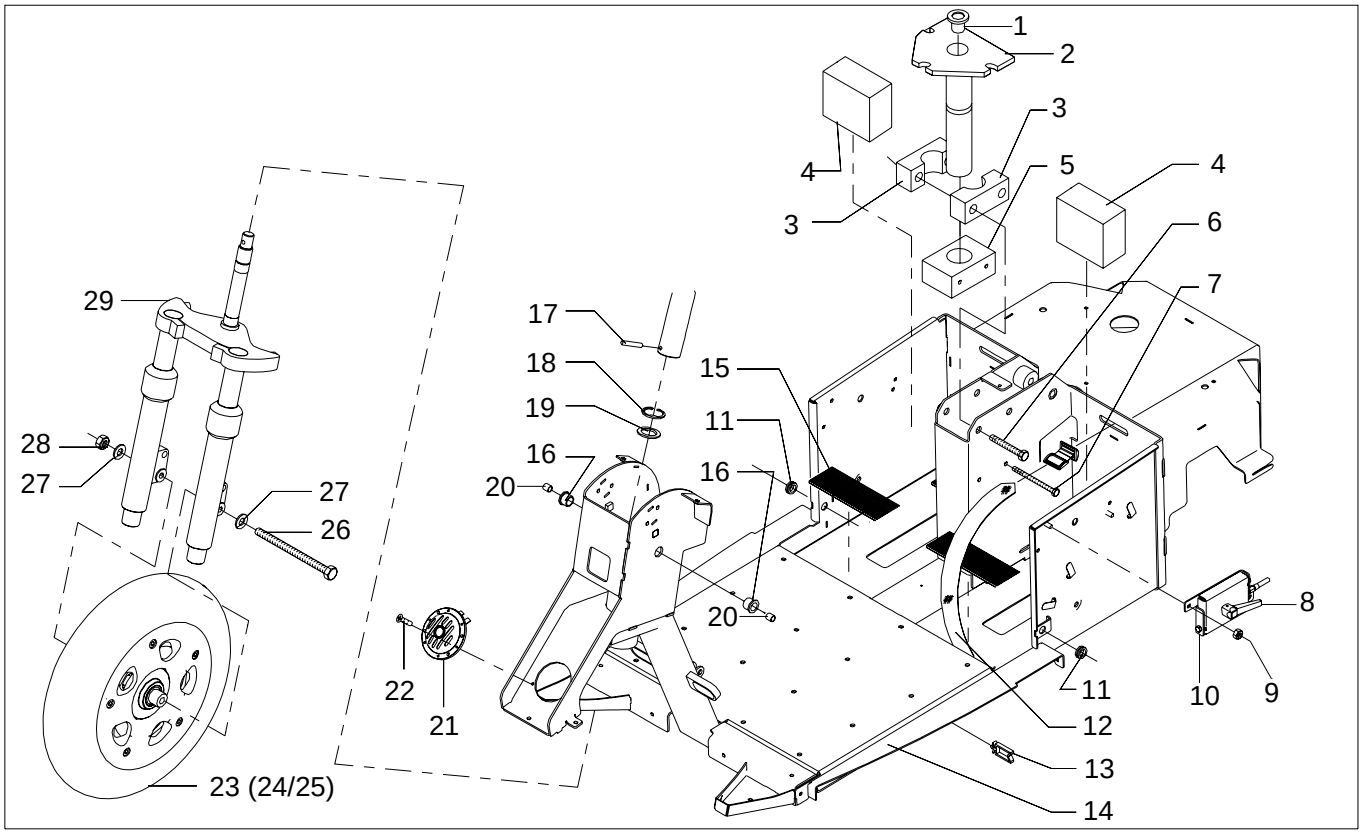
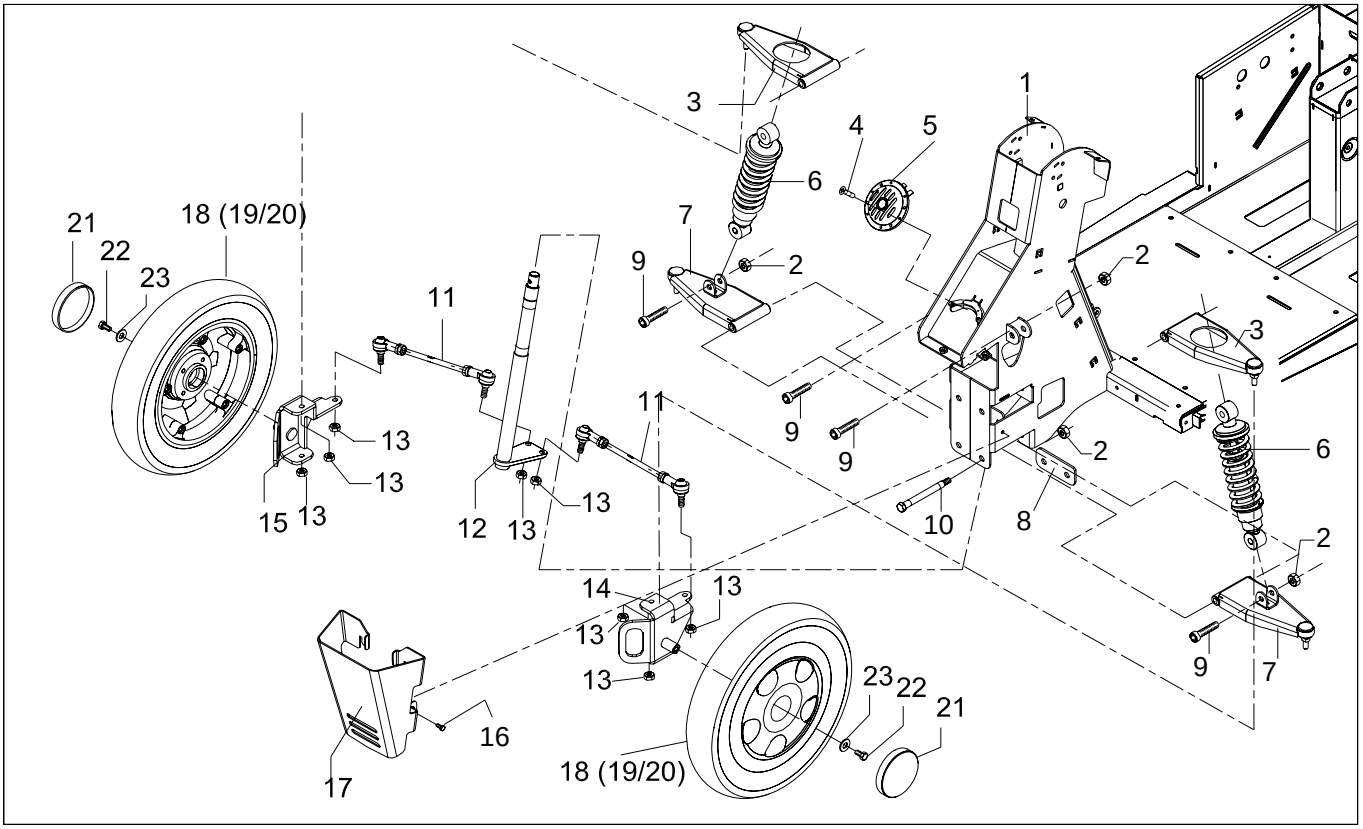
7.1 (001) Front frame, front fork, and front wheel Trophy 3W



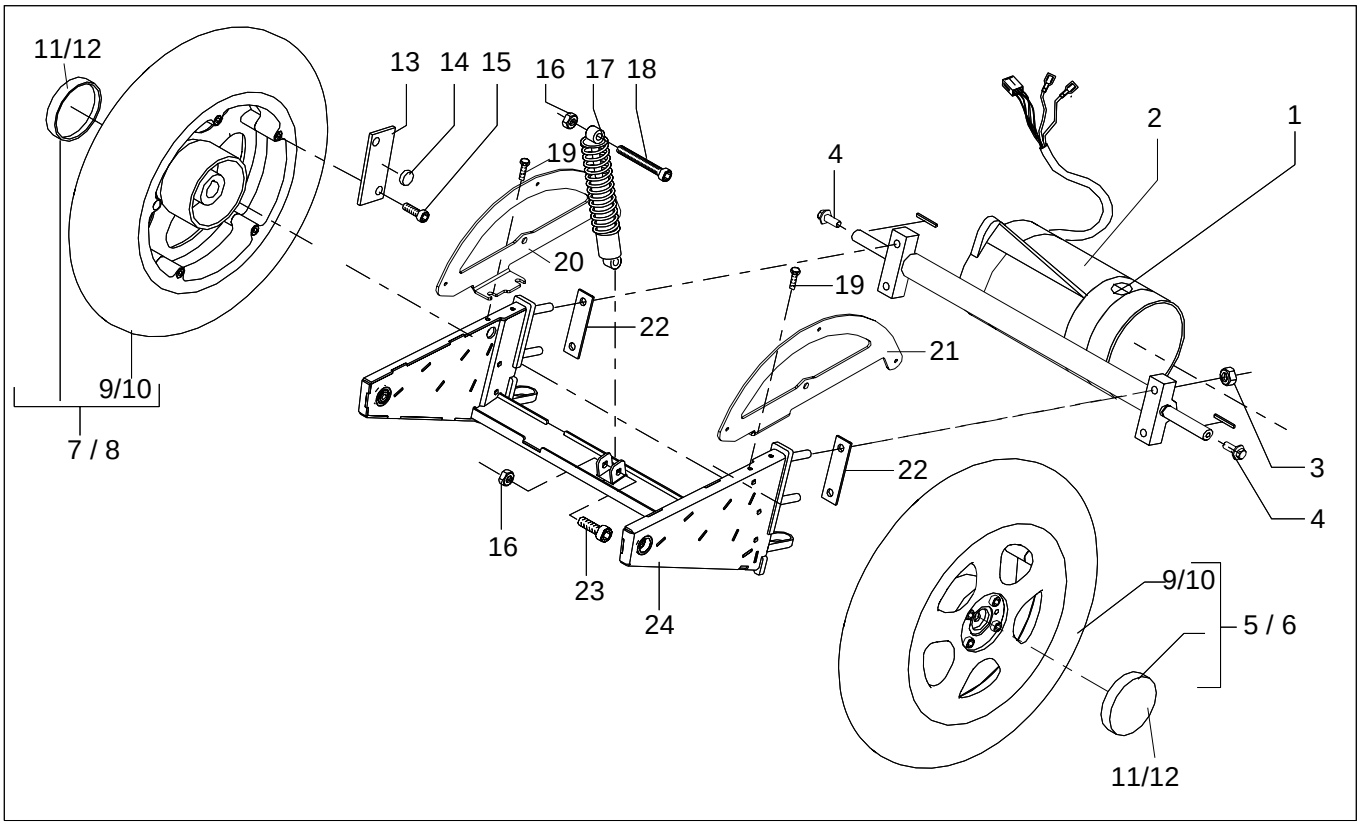
Pos	Article number	Units	Description	Price p/p 2008
1	9000933	1	Nylon bearing seat post	£12,42
2	9000932	1	Seat post	£66,24
3	9000795	1	Stauff block alu	£8,97
4	00001.0008	2	Spacer block, battery	£1,17
5	9000609	1	Clamp, seat post	£13,11
6	1002345	1	Hex bolt M10x75	£0,35
7	00000.4318	1	Hex bolt M6x65	£0,28
8	9000762	1	Lever freewheel	£5,80
9	00000.1701	2	Lock nut M6	£0,14
10	9000178	1	Freewheel mechanism	£37,95
11	9000630	2	Tulle	£0,28
12	9000591	2	Strap, battery retention	£11,73
13	1002247	14	Clamp, cable	£0,41
14	9000427	1	Front frame, incl. ball-head bearings Trophy 3W	£372,60
15	1001277	2	Anti-slip mat	£2,90
16	00000.5306	2	Hinge pin, steering adjustment	£1,38
17	00001.0804	1	Rolled pin 6x30	£0,21
18	1001796	1	Lock washer	£0,76
19	00000.6008	1	Ring 20x28x1	£0,35
20	9000632	2	Bush bearing tiller	£2,90
21	9000542	1	Horn	£14,49
22	00000.3218	2	Screw M4x12	£0,14
23	9000584	1	Front wheel, complete white	£93,15
	9001994	1	Front wheel, complete grey	£93,15
24	15010.4200	1	Tyre, front wheel Trophy	£17,25
25	15010.4100	1	inner tube, front wheel Trophy	£8,97
26	9002166	1	Hex bolt M8x150	£1,24
27	00000.2203	2	Spring washer M8	£0,14
28	00000.1702	1	Lock nut M8	£0,21
29	9000504	1	Front fork, complete	£124,20

7.2 (002) Front frame, frontwheelsuspension and front wheel Trophy 4W



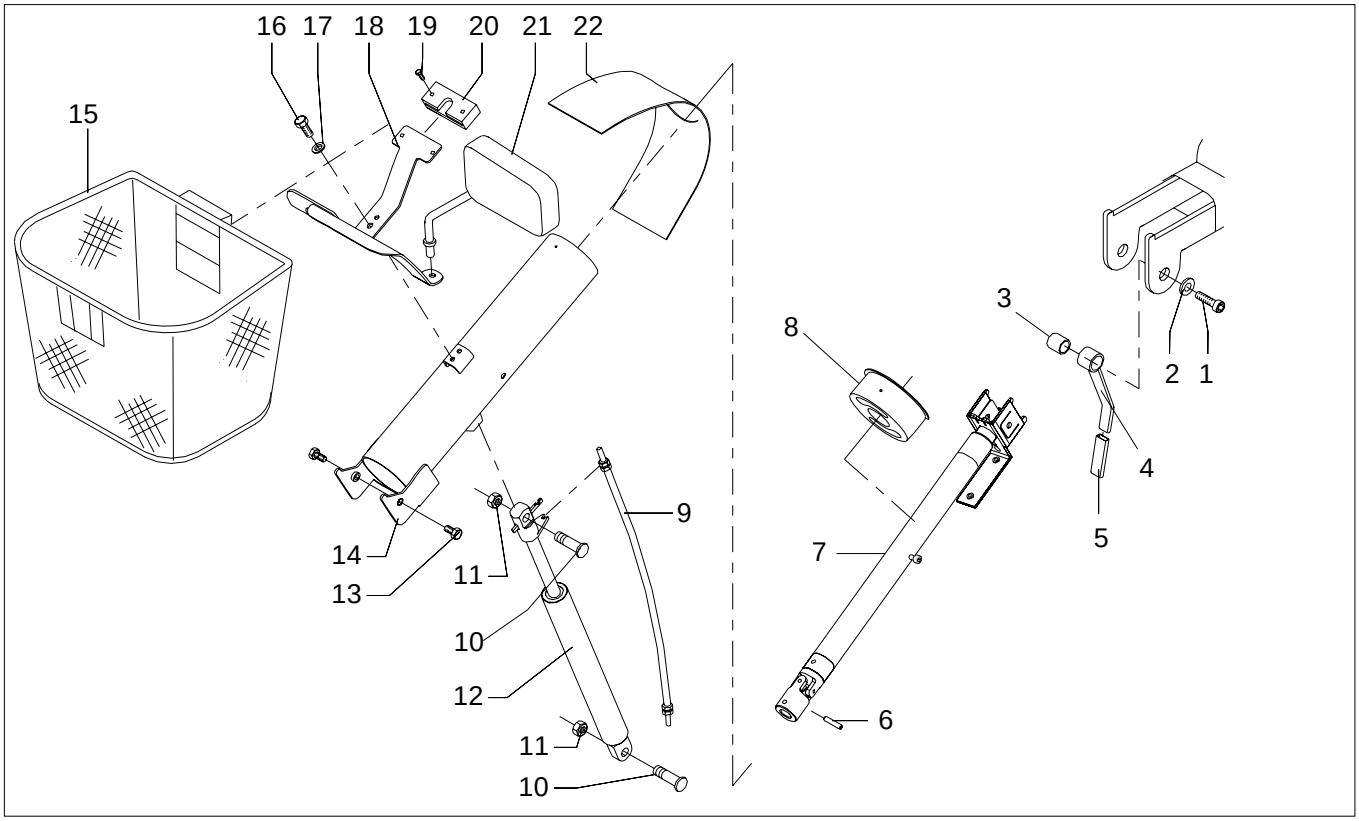
Pos	Article number	Units	Description	Price p/p 2008
1	9001901	1	Front frame, incl. ball-head bearings Trophy 4W	£404,34
2	00000.1703	6	Lock nut M10 D985	£0,35
3	9002090	2	Swing arm top assy	£24,15
4	00000.3218	2	Screw M4x12	£0,14
5	9000542	1	Horn	£14,49
6	9001641	2	Shock absorber	£64,86
7	9002091	2	Swing arm low assy	£24,15
8	9001895	1	Connection plate	£2,90
9	001.03010.001	4	Hex bolt M10x40 D931	£0,28
10	9001803	2	Axle suspension parallel bracket	£8,97
11	9002101	2	Steer rod	£17,25
12	9001802	1	Steer shaft	£37,95
13	00000.1702	8	Lock nut M8	£0,21
14	9001795	1	Wheel bracket left	£30,36
15	9001801	1	Wheel bracket right	£30,36
16	00000.4307	2	Hex bolt M6x12	£0,14
17	9001940	1	Bumper plate Trophy 4-wiel	£12,42
18	9001815	2	Front wheel Trophy 4W	£93,15
19	15010.4200	2	Tyre, front wheel Trophy	£17,25
20	15010.4100	2	inner tube, front wheel Trophy	£8,97
21	9002006	2	Cover grey	£5,80
22	00000.4312	2	Hex Bolt M8x16	£0,14
23	00000.2003	2	Washer flat M8	£0,14

7.3 (003) Rear frame, drive unit and rear wheel



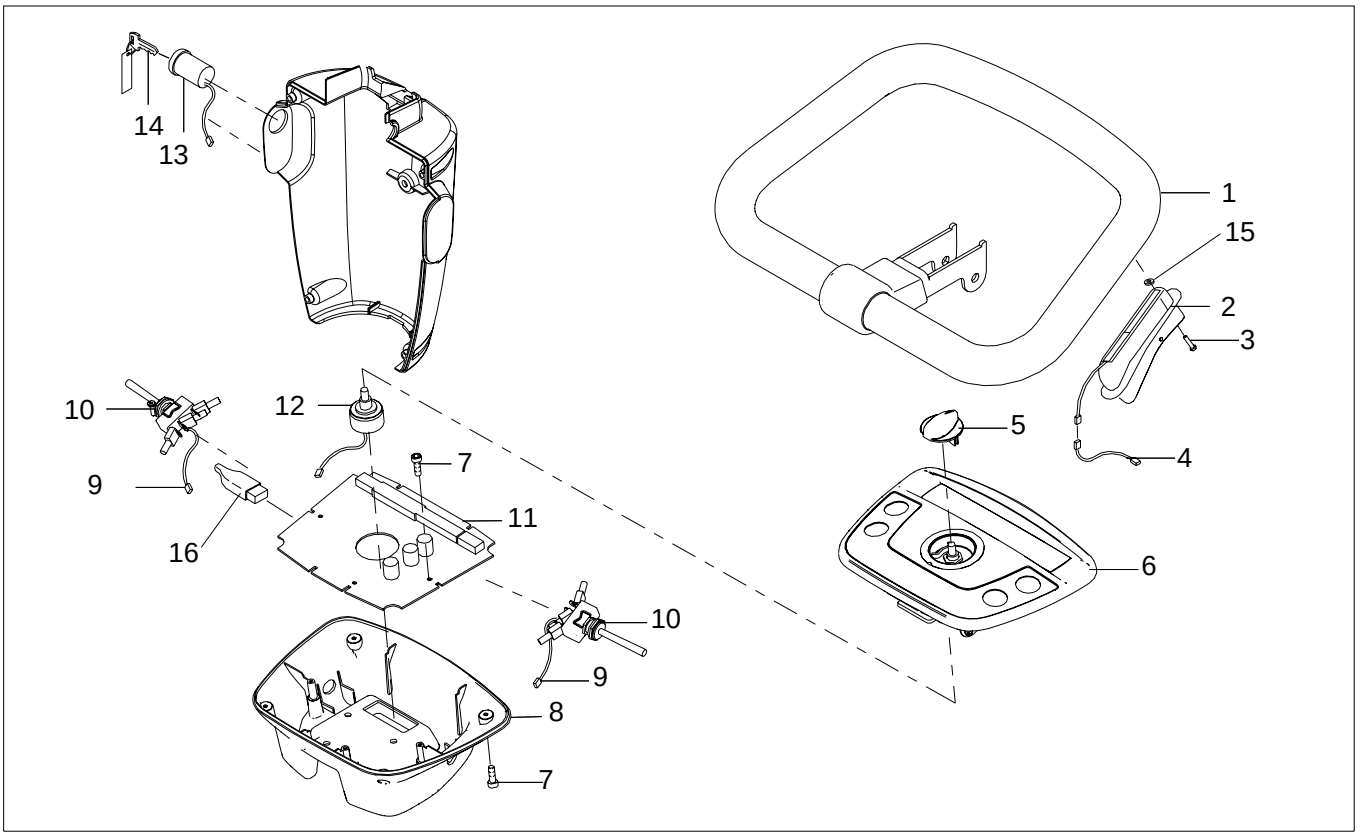
Pos	Article number	Units	Description	Price p/p 2008
1	1002646	4	Carbon brush	£3,93
2	1007947	1	Transaxle Trophy 3W and 4W	£875,00
	1007961	1	Transaxle Trophy Alpine	£975,00
3	00000.1703	4	Lock nut M10 D985	£0,35
4	1005956	2	Hex. flange bolt M12x30 (torque 90Nm, use locktite 270)	£1,79
5	9000550	1	Rear wheel white, left-side with brake drum	£148,35
	9001996	1	Rear wheel grey, left-side with brake drum	£148,35
6	9001172	1	Rear wheel white, left side standard	£132,48
	9001998	1	Rear wheel grey, left side standard	£132,48
7	9000549	1	Rear wheel white, right-side with brake drum	£148,35
	9001995	1	Rear wheel grey, right-side with brake drum	£148,35
8	9001173	1	Rear wheel white, right side standard	£132,48
	9001997	1	Rear wheel grey, right side standard	£132,48
9	9000548	2	Tyre, rear wheel Trophy	£26,91
10	9000547	2	Inner tube, rear wheel Trophy	£13,11
11	1004272	2	Cover white	£8,97
12	9002006	2	Cover grey	£5,80
13	9000821	1	Magnet plate, speed sensor	£2,28
14	9000642	1	Speed sensor magnet	£8,97
15	00000.4009	1	Allen bolt M8x35	£0,21
16	00000.1703	2	Lock nut M10 D985	£0,35
17	9000603	1	Rear spring, standard	£104,88
	9000683	1	Rear spring, heavy duty	£121,44
18	1002243	1	Allen bolt M10x75	£0,41
19	00000.4307	4	Hex bolt M6x12	£0,14
20	9000256	1	Mounting bracket, right mud guard	£8,97
21	9000257	1	Mounting bracket, left mud guard	£8,97
22	9000689	2	Rubber mounting strip, transaxle	£0,76
23	1002242	1	Allen bolt M10x40	£0,28
24	9000494	1	Back frame	£104,88

7.4 (004) Steering column, mirror and basket



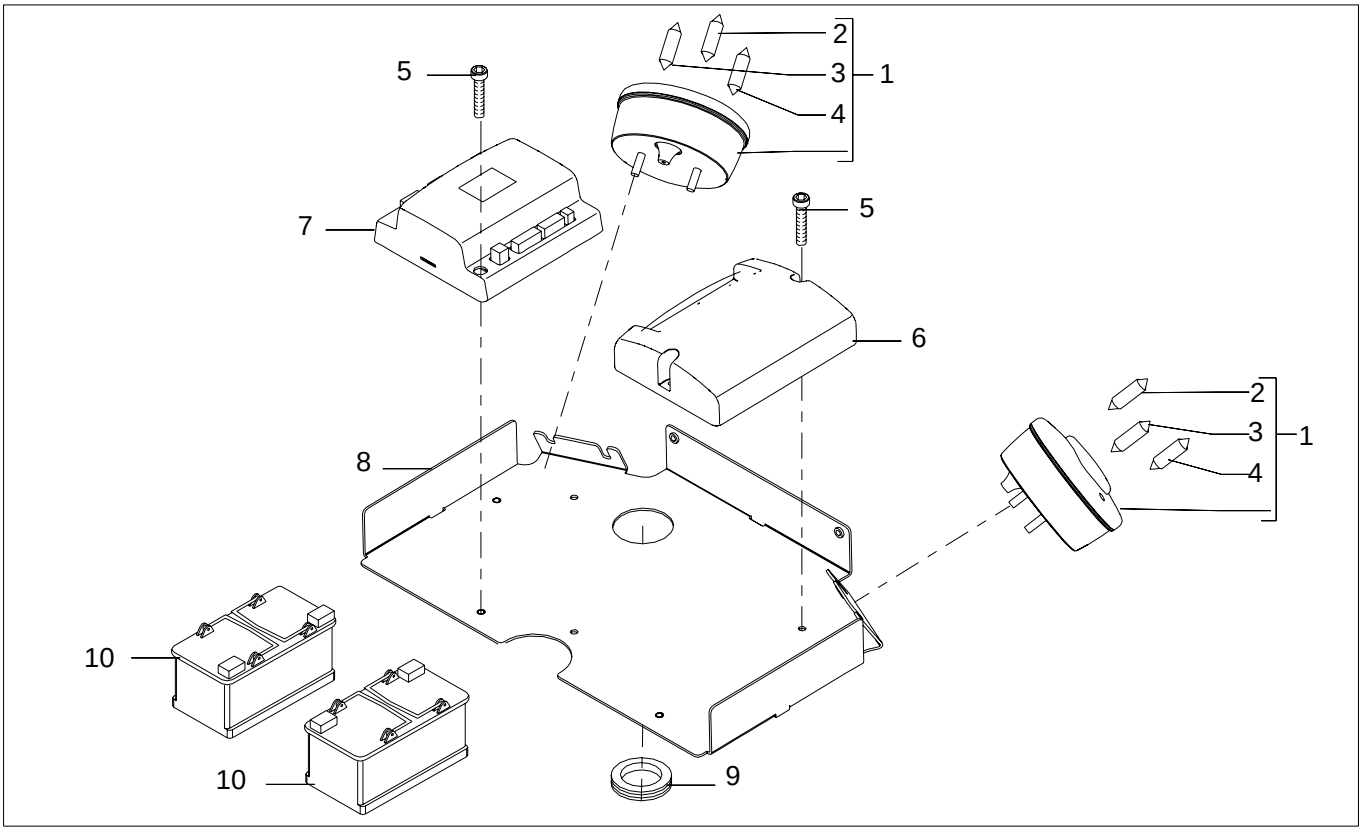
Pos	Article number	Units	Description	Price p/p 2008
1	00000.4041	1	Allen bolt M8x55	£0,28
2	00000.2203	1	Spring washer M8	£0,14
3	9000019	1	Spacing bush	£2,28
4	9000648	1	Handle, steering adjustment	£6,56
5	9000781	1	Cap, steering adjustment handle	£0,76
6	00001.0804	1	Rolled pin	£0,21
7	9001095	1	Steering column adjustment tube	£170,43
8	9001100	1	Nylon bushing, steering column	£20,70
9	9000610	1	Control cable, gas spring for steering adjustment	£5,11
10	9000826	2	Shoulder bolt, gas spring	£2,14
11	00000.1701	2	Lock nut M6	£0,14
12	9000684	1	Gas spring, steering adjustment inc. operating mechanism	£57,27
13	00000.4312	2	Hex Bolt M8x16	£0,14
14	9000435	1	Cylinder, steering column	£56,58
15	9001135	1	Basket, front side	£37,95
16	00000.4307	2	Hex bolt M6x12	£0,14
17	00000.2202	2	Spring washer M6	£0,14
18	9000732	1	Support	£12,42
19	00000.3612	2	Screw M4x10	£0,14
20	9000704	1	Basket holder	£6,56
21	265.00011.010	1	Mirror, black (left side)	£26,91
22	9000601	1	Cover plate, steering adjustment	£8,97

7.5 (005) Console, printed circuit board and throttle control



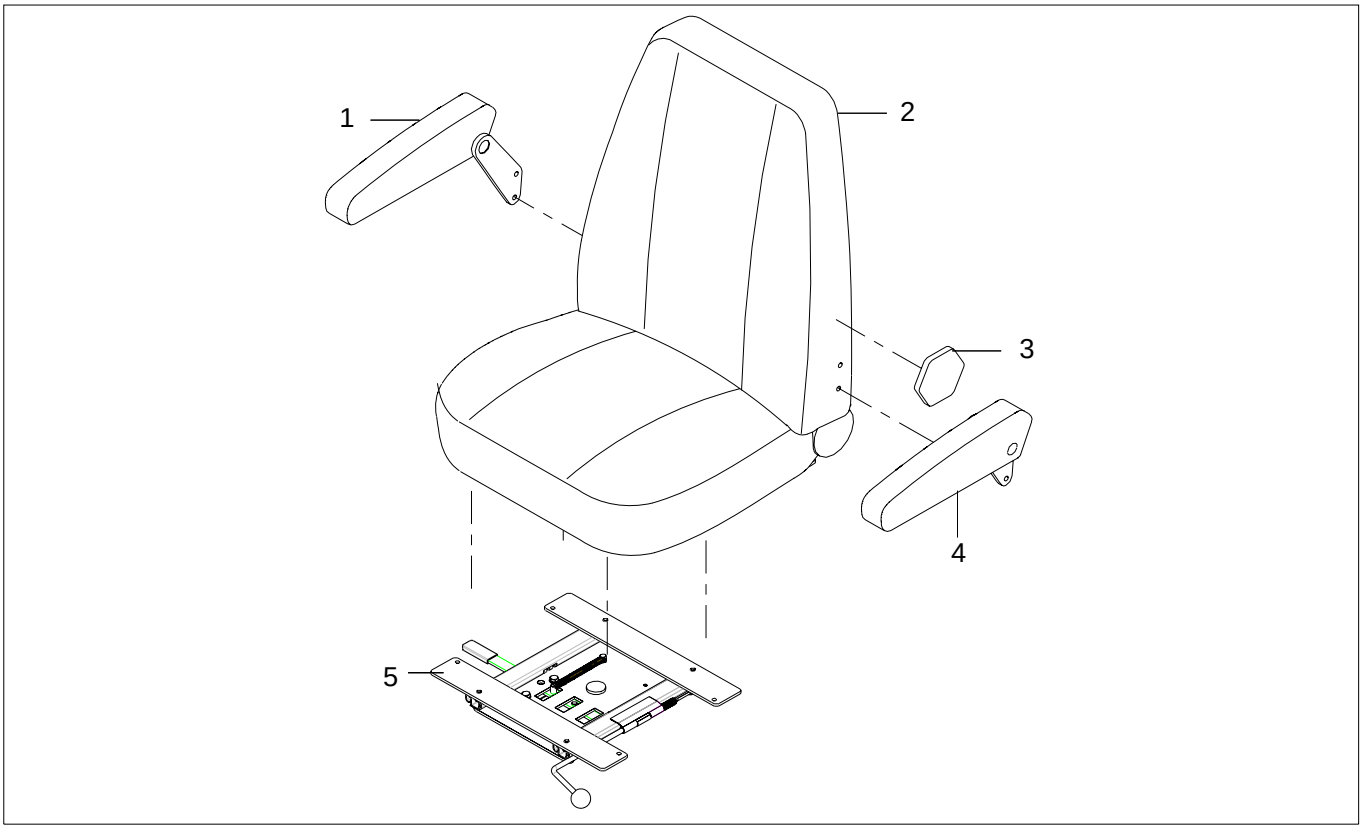
Pos	Article number	Units	Description	Price p/p 2008
1	1008342	1	Revision steering wheel with throttle left	£138,00
	1008343	1	Revision steering wheel with throttle right	£138,00
	1008344	1	Revision steering wheel with dual throttle	£196,65
	1008345	1	Steering wheel with throttle left	£210,45
	1008346	1	Steering wheel with throttle right	£210,45
	1008347	1	Steering wheel with dual throttle	£293,25
2	1008055	2	Potentiometer, accelerator	£58,65
3	00000.3307	4	Sheet-metal screw 2.9x13	£0,14
5	1001341	1	Knob, speed potentiometer	£1,17
6	1002555	1	Console, upper (standard)	£62,10
7	1001730	7	Screw	£0,21
8	9000481	1	Console, lower	£55,20
9	9000531	2	Cable, RAW switch	£8,97
10	9000522	2	RAW switch	£37,95
11	9000496	1	PCB, console	£206,31
12	9002182	1	Speed potentiometer	£44,16
13	1008278	1	Ignition lock, complete	£40,71
	9002188	1	Harness for ignition lock	£20,70
14	1008307	2	Ignition key	£3,93
15	9002104	4	Spacer 3.2x5.5x2.2	£0,14
16	9002177	2	Throttle control dummy	£4,35

7.6 (006) Electronics, controller and batteries



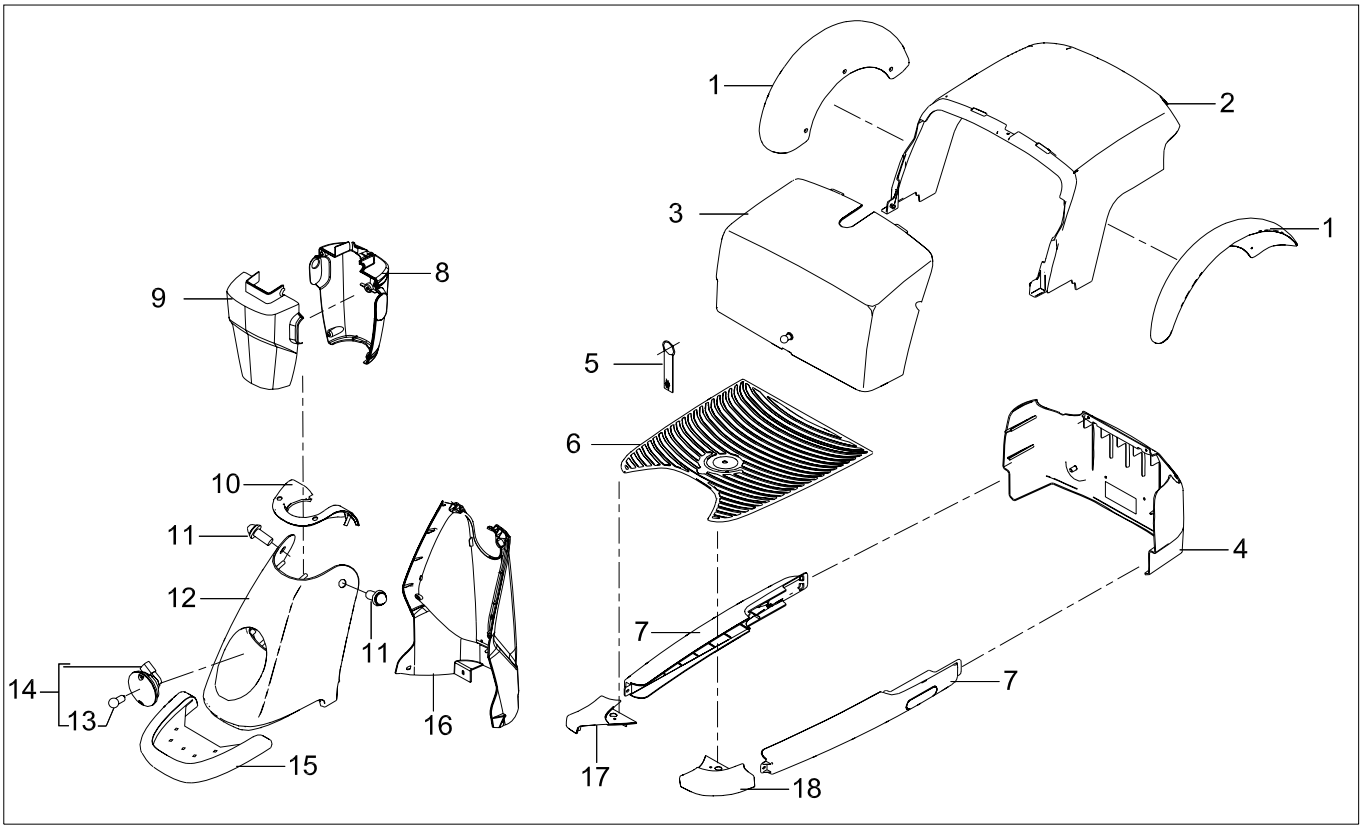
Pos	Article number	Units	Description	Price p/p 2008
1	1001797	2	Rear light, complete	£39,33
2	00355.4213	2	Tube light 24V 5W	£1,93
3	00355.4203	2	Tube light 24V 10W	£2,07
4	9000539	2	Rear light ULO 3120-01	£2,28
5	00000.3204	4	Screw M5x25	£0,21
6	1008074	1	Controller, Egis 110A	£295,32
7	1002558	1	Controller interface	£154,57
8	9000647	1	Mounting plate, electronics	£27,60
9	9000782	1	Tulle 32 x 1.6	£0,90
10	135.00071.000	2	Battery 56 Ah	£193,20
	135.00051.000	2	Battery 85 Ah	£242,19

7.7 (007) Seat



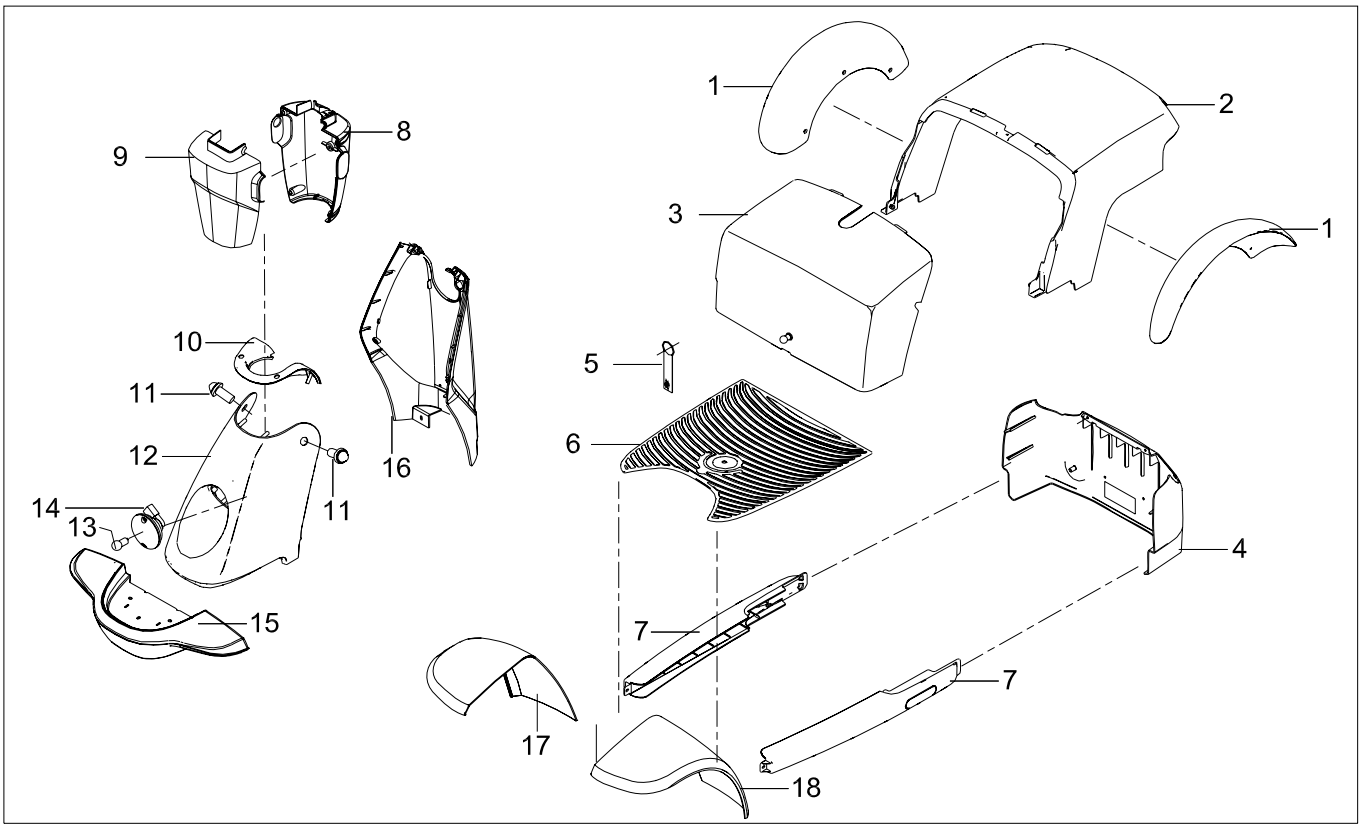
Pos	Article number	Units	Description	Price p/p 2008
1	118.00221.000	1	Armrest, right	£84,18
2	1002861	1	Master seat with armrests	£305,67
3	1003383	1	Lumbar knob	£8,28
4	118.00231.000	1	Armrest, left	£84,18
5	9000034	1	Seat frame with slider (right-side operation)	£101,43

7.8 (008) Covers Trophy 3W



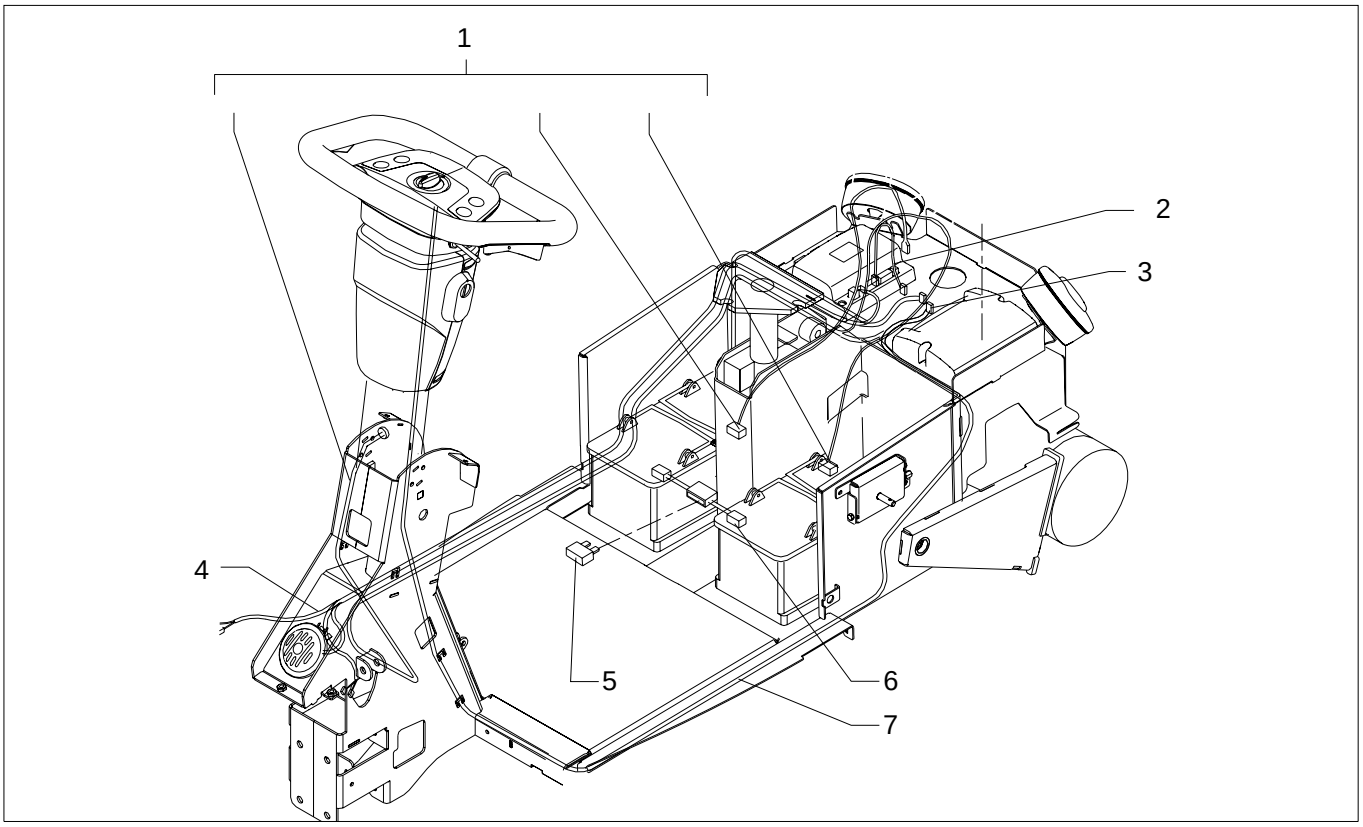
Pos	Article number	Units	Description	Price p/p 2008
1	1001905	2	Mud guard	£41,40
2	1007754	1	Rear cover assy	£151,80
3	1007757	1	Battery cover assy	£117,30
4	1007755	1	Rear bumper assy	£116,61
5	1001276	1	Rubber strap, battery cover	£1,93
6	9000505	1	Plateau mat	£35,19
7	1007756	2	Side cover assy	£49,68
8	9002194	1	Rear cover, steering column	£59,34
9	1001895	1	Front cover, steering column	£51,06
10	9000486	1	Front cover, front portion	£33,81
11	9000543	2	Turn indicator, complete	£24,84
-	9002236	2	Foam ring for indicator	£0,83
12	1001899	1	Front cover	£71,76
13	9000536	1	Spherical bulb 24V 21W	£2,55
14	9000535	1	Headlight, complete	£20,01
15	9000429	1	Front bumper Trophy 3W	£37,26
16	9000485	1	Front cover, rear portion Trophy 3W	£62,10
17	9000460	1	Foot support, right	£24,84
18	9000461	1	Foot support, left	£24,84

7.9 (009) Covers Trophy 4W



Pos	Article number	Units	Description	Price p/p 2008
1	1001905	2	Mud guard	£41,40
2	1007754	1	Rear cover assy	£151,80
3	1007757	1	Battery cover assy	£117,30
4	1007755	1	Rear bumper assy	£116,61
5	1001276	1	Rubber strap, battery cover	£1,93
6	9000505	1	Plateau mat	£35,19
7	1007756	2	Side cover assy	£49,68
8	9002194	1	Rear cover, steering column	£59,34
9	1001895	1	Front cover, steering column	£51,06
10	9000486	1	Front cover, front portion	£33,81
11	9000543	2	Turn indicator, complete	£24,84
-	9002236	2	Foam ring for indicator	£0,83
12	1001899	1	Front cover	£71,76
13	9000536	1	Spherical bulb 24V 21W	£2,55
14	9000535	1	Headlight, complete	£20,01
15	9001970	1	Front bumper Trophy 4W	£61,41
16	9001921	1	Front cover, rear portion Trophy 4W	£62,10
17	9001963	1	Mudgard right hand front	£62,10
18	9001964	1	Mudgard left hand front	£62,10

7.10 (010) Cabling



Pos	Article number	Units	Description	Price p/p 2008
1	9000783	1	Power cable, complete	£98,67
2	9002181	1	Cable harness, interface/Egis	£26,91
	9002190	1	Cable harness, interface/Egis for foot control	£26,91
3	9001535	1	Speed sensor	£22,77
4	9000537	1	Main cable tree, lighting	£34,50
5	9000773	1	Fuse 100A	£1,52
6	9000526	1	Battery cable, series connection (incl. terminal clamp)	£15,87
7	9002180	1	Main cable	£62,10

7.11 (011) Options

Article number	Units	Description	Price p/p 2008
9000701	1	Trolleybag	£58,65
9000620	1	Bracket for trolleybag	£77,97
9000703	1	Front bag	£58,65
1001719	1	Seat frame with slider (left-side operation)	£101,43
9000683	1	Rear spring heavy duty	£121,44
2537	1	Cane holder mounted to chair	£60,03
1001754	1	Cane holder mounted to chassis	£76,59
265.00001.010	1	Mirror right	£26,91
9000752	1	Bracket for mirror right	£10,35
9000436	1	Anti tip wheel left	£13,80
9000437	1	Anti tip wheel right	£13,80
9000825	1	Adjustmenttool for rear spring	£13,80

Version overview:

04-12-2007 Version 2008v1
Altered with reference to the Trophy update.

07-12-2007 Version 2008v2
Revision steering wheels added on drawing 005.

30-01-2008 Version 2008v3
Page 14 altered
Drawing 9 en 10. Foam ring added to parts list

10-03-2008 Version 2008v4
Price p/p added to parts lists